1564777

Access DB#_____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester=s full Name: Devesh Khare Examiner #: 77931 Date: 05/19/2005

Art Unit: 1623 Phone Number 272-0653 Serial Number: 10/667,216

Mail Box: Remsen 5C18 and Bldg/Room Location: 5C35 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be search Include the elected species or structures, key words, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: See Bib Data Sheet on e-dan.

Inventors (please provide full names): See Bib Data Sheet on e-dan.

Earliest priority Filing Date: 09/20/2002

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please carry out a search on the attached claim sheet.

Thank you.

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher:_____	NA Sequence (#)____	STN_____
Searcher Phone #:_____	AA Sequence (#)____	Dialog_____
Searcher Location:_____	Structure (#) _____	Questel/Orbit_____
Date Searcher Picked Up:_____	Bibliographic _____	Dr. Link_____
Date Completed:_____	Litigation _____	
Lexis/Nexis_____		
Searcher Prep & Review Time:_____	Fulltext _____	Sequence Systems_____
Clerical prep time:_____	Patent Family_____	WWW/Internet_____
Online Time:_____	Other _____	Other (specify)_____

PTO-1590 (1-2000)

Date completed: _____

Searcher: Beverly e 2528

Terminal time: _____

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Number of Searches: _____

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_____ STIC

_____ CM-1

_____ Pre-S

Type of Search

_____ N.A. Sequence

_____ A.A. Sequence

_____ Structure

_____ Bibliographic

Vendors

_____ IG

✓ STN

_____ Dialog

_____ APS

_____ Geninfo

_____ SDC

_____ DARC/Questel

_____ Other

PTO-1590 (8-98)

Khare, D.
10/667216

FILE 'REGISTRY' ENTERED AT 16:43:33 ON 12 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 JUL 2005 HIGHEST RN 854584-06-8
DICTIONARY FILE UPDATES: 11 JUL 2005 HIGHEST RN 854584-06-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005. A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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                E HEPARIN/CN 5
L1              1 S E3
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FILE 'CAPLUS' ENTERED AT 16:43:43 ON 12 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 12 Jul 2005 VOL 143 ISS 3
FILE LAST UPDATED: 11 Jul 2005 (20050711/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

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L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  HEPARIN/CN
L2         46156 SEA FILE=CAPLUS ABB=ON  PLU=ON  L1 OR HEPARIN##
L3           410 SEA FILE=CAPLUS ABB=ON  PLU=ON  L2 AND (OXIDIS? OR
                 OXIDIZ?)
L7            43 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 AND ((MOL OR MOLECULAR)(
                 W)(WT OR WEIGH?) OR MW OR M W)
L8             4 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND (DA OR DALTON)
```

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 20 Dec 2002
ACCESSION NUMBER: 2002:965151 CAPLUS
DOCUMENT NUMBER: 138:35040
TITLE: Biocompatible, biodegradable, water-absorbent material prepared by polymer-polymer inter-coupling between a natural water-soluble polymer and a synthetic polymer
INVENTOR(S): Bucevschi, Mircea Dan; Colt, Monica
PATENT ASSIGNEE(S): Exotech Bio Solution Ltd., Israel
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002193516	A1	20021219	US 2001-823612	20010330
US 6833488	B2	20041221		
PRIORITY APPLN. INFO.:			US 2001-823612	20010330

AB A bio-compatible, biodegradable macromol. water-absorbent polymeric material, which has a three-dimensional configuration with intermol. covalent bonds and contains free functional groups selected from OH, SH, NH2, and COOH, is formed by polymer-polymer inter-coupling interaction between a natural water-soluble polymer A or its derivs. having a **mol. weight** between 20,000 and 500,000 **Da**, and a synthetic polymer B at a ratio of A:B of 15:85-85:15 in a liquid-liquid heterogeneous system in the absence of any crosslinking or coupling agent. The natural polymer A, which can undergo polymer-polymer intercoupling reactions, can be selected from: a non-ionic natural, partially denatured or chemical modified polymer that does not dissociate in water; or an anionic natural, partially denatured or chemical modified polymer, that dissocs. in water to form anions; or a cationic natural, partially denatured or chemical modified polymer, that dissocs. in water to form cations; or an amphoteric natural, partially denatured or chemical modified polymer, that dissocs. in water to form both anions and cations; or mixts. thereof. Thus, 20 g gelatin in 980 g of water is prepared with 50 g NH4OH (5%) added to give a pH of 8.5. A second 3862 g solution containing 80 g of poly(styrene-alt-maleic anhydride), 700 cm3 of Et acetate, 3330 g OL1, and 300 cm3 N,N'-dimethylformamide, 292 g OL2, is added to the reaction vessel. In dropping funnel are introduced 250 g of 5% NH4OH and an automated titroprocessor set to maintain the PH of the system at a constant value. The polymer-polymer intercoupling reaction in liquid-liquid heterogeneous system occurs in 150 min, and uses 180 g of 5% NH4OH solution Such superabsorbent materials that are biocompatible and biodegradable are

useful in different applications, such as for bodily hygiene, medical materials, agromaterials, drying agents, and others.

IT **9005-49-6, Heparin,** biological studies
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(biocompatible, biodegradable, water-absorbent material prepared by polymer-polymer inter-coupling between a natural water-soluble polymer and a synthetic polymer)

REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 23 May 1997
ACCESSION NUMBER: 1997:326856 CAPLUS
DOCUMENT NUMBER: 126:308811
TITLE: Iron dextran formulations for the treatment of iron deficiency
INVENTOR(S): Lawrence, Richard P.; Lange, Ralf A.; Lance, Ralf A.; Wu, Chin; Helenek, Mary Jane
PATENT ASSIGNEE(S): Luitpold Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9711711	A1	19970403	WO 1996-US14153	19960829
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5624668	A	19970429	US 1995-536984	19950929
AU 9669647	A1	19970417	AU 1996-69647	19960829
AU 702691	B2	19990304		
EP 855913	A1	19980805	EP 1996-930686	19960829
EP 855913	B1	20020612		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11512706	T2	19991102	JP 1997-513439	19960829
JP 3471363	B2	20031202		
AT 218875	E	20020615	AT 1996-930686	19960829
PT 855913	T	20021129	PT 1996-930686	19960829
ES 2179207	T3	20030116	ES 1996-930686	19960829
CA 2184551	AA	19970330	CA 1996-2184551	19960830
CA 2184551	C	20011127		

PRIORITY APPLN. INFO.: US 1995-536984 A 19950929
WO 1996-US14153 W 19960829

AB Ferric oxyhydroxide-dextran compns. for treating iron deficiency having ellipsoidal particles with a preferred **mol. weight** of 250,000-300,000 **daltons.**, are disclosed. The

complex is suspended in a physiol. acceptable carrier and further treated under alkaline conditions with a low **mol. weight** stabilizing agent. Hot water 114 L was mixed with iron dextran 30 kg and **oxidized** dextran 28.3 kg and the mixture was diluted to 175 L. Next, 185 g NaOH was added to the mixture and the reaction solution was filtered for parenteral use.

IT **9005-49-6, Heparin,** biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizer; iron dextran formulations for treating iron deficiency)

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 23 Jul 1994
ACCESSION NUMBER: 1994:430214 CAPLUS
DOCUMENT NUMBER: 121:30214
TITLE: Mass spectrometric **molecular-weight** determination of highly acidic compounds of biological significance via their complexes with basic polypeptides
AUTHOR(S): Juhasz, Peter; Biemann, Klaus
CORPORATE SOURCE: Dep. Chem., Massachusetts Institute of Technol., Cambridge, MA, 02139-4307, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1994), 91(10), 4333-7
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Highly acidic compds. that are difficult to ionize by matrix-assisted laser desorption ionization give excellent spectra when mixed with a basic peptide or protein to form a noncovalent complex. This phenomenon makes it possible to determine the **mol. wts.** of polysulfated, polysulfonated, and polyphosphorylated biomols. such as cysteic acid-containing peptides, oligonucleotides, **heparin**-derived oligosaccharides, and suramin (a drug containing 2 trisulfonated naphthalene moieties). Peptides and small proteins rich in arginine were used as the basic components. The extent of complex formation correlates with the number of phosphate and sulfate groups in the acidic component and with the number of arginines in the basic component. Neither the acidic amino acid residue aspartic and glutamic acid nor the basic lysine and histidine contribute to complex formation. For oligonucleotides, histone H4 was found to be the best complexing agent investigated. The anal. utility of the complex formation is demonstrated by the mol.-mass determination of acidic compds. from 500 to 6000 **Da** at the picomole or sub-picomole level with an accuracy of ±0.1% or better and by the absence of alkali cation adducts.

IT **9005-49-6, Heparin,** biological studies
RL: BIOL (Biological study)
(oligosaccharides derived from, **mol. weight** of, determination of, with basic polypeptides for complex formation and matrix-assisted laser desorption ionization mass spectrometry)

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1984:156940 CAPLUS
DOCUMENT NUMBER: 100:156940
TITLE: Low-**molecular-weight** **heparins** by depolymerization of normal

heparin

INVENTOR(S): Smith, Milton R.; Amaya, Eduardo; Fussi, Fernando
PATENT ASSIGNEE(S): Hepar Industries, Inc., USA
SOURCE: S. African, 10 pp.
CODEN: SFXXAB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 8209463	A	19831026	ZA 1982-9463	19821223
CA 1195322	A1	19851015	CA 1982-418428	19821223
AU 8310331	A1	19840126	AU 1983-10331	19830112
JP 59020302	A2	19840202	JP 1983-3271	19830112
JP 04042401	B4	19920713		
EP 101141	A2	19840222	EP 1983-300155	19830112
EP 101141	A3	19850522		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
ES 519015	A1	19840201	ES 1983-519015	19830114
DK 8303255	A	19840120	DK 1983-3255	19830714
DK 172798	B1	19990719		
PRIORITY APPLN. INFO.:			US 1982-399217 A	19820719

AB Low **mol. weight heparin** fractions were prepared by acidifying normal **heparin** to pH .apprx.3-5 to give **heparinic** acid (I) and depolymg. I by heating in the presence of an **oxidizing** agent, e.g., H2O2, to give **heparin** fractions of .apprx.4,000-12,000 **Dalton**. The low **mol. weight heparin** fractions prepared have a ratio of antithrombotic activity to anticoagulant activity which is superior to that of the normal **heparin** (no data).

IT **9005-49-6P, Heparin**
RL: SPN (Synthetic preparation); PREP (Preparation)
(low-**mol.**-**weight**, preparation of, by depolymn. of normal **heparin**)

FILE 'MEDLINE' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'BIOSIS' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'EMBASE' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'WPIDS' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'CONFSCI' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'SCISEARCH' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'JICST-EPLUS' ENTERED AT 16:44:08 ON 12 JUL 2005

FILE 'JAPIO' ENTERED AT 16:44:08 ON 12 JUL 2005

Searcher : Shears 571-272-2528

L9 15 S L8
L10 15 DUP REM L9 (0 DUPLICATES REMOVED)

L10 ANSWER 1 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-375440 [35] WPIDS
DOC. NO. CPI: C2004-141077
TITLE: Biocompatible cohesive biopolymer gel useful as scaffold for cell-bearing implant and depot for sustained release of bioactive agents comprises coprecipitate of fibrillar protein and sulfated polysaccharide.
DERWENT CLASS: A96 B07 D16 D22
INVENTOR(S): ASTACHOV, L; NEVO, Z; ROCHKIND, S; SHAHAR, A
PATENT ASSIGNEE(S): (NVRN-N) NVR LABS LTD
COUNTRY COUNT: 106
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004029095	A2	20040408	(200435)*	EN	49
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2003269440	A1	20040419	(200462)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004029095	A2	WO 2003-IL787	20030930
AU 2003269440	A1	AU 2003-269440	20030930

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2003269440	A1	Based on	WO 2004029095

PRIORITY APPLN. INFO: IL 2002-152030 20020930
AN 2004-375440 [35] WPIDS
AB WO2004029095 A UPAB: 20040603
NOVELTY - A biocompatible cohesive biopolymer gel (A) comprising a coprecipitate (B) of at least 1 fibrillar protein and sulfated polysaccharide, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) preparation (P1) of (A) involving combining the solutions of fibrillar protein and sulfated polysaccharide at appropriate pH in the absence of an exogenous cross-linking agent to form (B) of cohesive gel followed by precipitation with a volatile organic solvent;
(2) a kit comprising at least one dose of each constituent solution necessary to obtain (B) which forms (A); and
(3) a composition comprising a bioactive substance within (A).
USE - For clinical applications e.g. as implants for tissue

engineering as well as in biotechnology; as scaffold for cell-bearing implant, and depot for sustained release of bioactive agents; and in the fabrication of medical devices.

ADVANTAGE - (A) Exhibits improved biocompatibility, controllable biodegradation rate, affinity for cultured cells and fostering cell growth.

Dwg.0/11

L10 ANSWER 2 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-327670 [30] WPIDS
DOC. NO. CPI: C2004-124188
TITLE: Processing collagenous connective tissue by stabilizing collagen fibers, soaking tissue in polyglycol solution, washing tissue, and soaking in solutions of anti-inflammatory agent and anti-thrombic agent.
DERWENT CLASS: A96 B04 B05 D22
INVENTOR(S): CHEUNG, D T
PATENT ASSIGNEE(S): (CHEU-I) CHEUNG D T
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004057936	A1	20040325	(200430)*		14

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004057936	A1	US 2002-253017	20020923

PRIORITY APPLN. INFO: US 2002-253017 20020923
AN 2004-327670 [30] WPIDS
AB US2004057936 A UPAB: 20040511
NOVELTY - Collagenous connective tissue is processed from animal donor source by stabilizing collagen fibers in cold stabilizing solution; soaking the tissue in solution comprising polyglycol, **oxidizing** agent, salt, and phosphate buffer; washing the tissue in solution comprising alcohol and water; and soaking the tissue in solution comprising anti-inflammatory agent and anti-thrombic agent.

DETAILED DESCRIPTION - Processing collagenous connective tissue having a structure of collagen fibers from an animal donor source such that upon implant of the tissue to a recipient the tissue is acceptable to the recipient without an immune and inflammatory rejection, comprises stabilizing the collagen fibers contained in the collagenous connective tissue in a cold stabilizing solution for a period and at a temperature sufficient to retain the structure of the collagen fibers; soaking the collagenous connective tissue in a first solution comprising predetermined quantities and concentrations of polyglycol, an **oxidizing** agent, salt and phosphate buffer at a predetermined temperature where the first solution is of sufficient ionic strength to permit ground substances to dissociate from the collagenous connective tissue such that the collagen fibers remain stable; washing the collagenous connective tissue in predetermined quantities and concentrations of a second solution comprising alcohol and water for a sufficient period of time to remove the residue of the

first solution; soaking the collagenous connective tissue in a third solution comprising a predetermined quantity and concentration of an anti-inflammatory agent at a predetermined temperature; and soaking the collagenous connective tissue in a fourth solution comprising a predetermined quantity and concentration of an anti-thrombic agent at a predetermined temperature.

USE - The invention is used for processing collagenous connective tissue.

ADVANTAGE - The invention implants the collagen fibers in a recipient without an immune and inflammatory rejection.

Dwg.0/1

L10 ANSWER 3 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-721714 [68] WPIDS
CROSS REFERENCE: 2003-712676 [67]
DOC. NO. NON-CPI: N2003-577021
DOC. NO. CPI: C2003-198603
TITLE: Coated substrate, e.g. a medical device, comprises bioactive hydrogel matrix layer overlying and immobilized on surface of substrate, and comprising two high **molecular weight** components, each including polyglycans or polypeptides.
DERWENT CLASS: B04 B07 D22 P34 S05
INVENTOR(S): HILL, R S; KLANN, R C; LAMBERTI, F V
PATENT ASSIGNEE(S): (ENCE-N) ENCELLE INC
COUNTRY COUNT: 102
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003072157	A1	20030904	(200368)*	EN	53
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
US 2003232198	A1	20031218	(200406)		
AU 2003215330	A1	20030909	(200428)		
EP 1476204	A1	20041117	(200475)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003072157	A1	WO 2003-US5072	20030221
US 2003232198	A1 Provisional	US 2002-358625P	20020221
		US 2003-372757	20030221
AU 2003215330	A1	AU 2003-215330	20030221
EP 1476204	A1	EP 2003-711151	20030221
		WO 2003-US5072	20030221

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2003215330 A1 Based on WO 2003072157
EP 1476204 A1 Based on WO 2003072157

PRIORITY APPLN. INFO: US 2002-358625P 20020221; US 2003-372757 20030221
AN 2003-721714 [68] WPIDS
CR 2003-712676 [67]
AB WO2003072157 A UPAB: 20041122
NOVELTY - Coated substrate, e.g. medical device, comprises a substrate (60); and a bioactive hydrogel matrix layer overlying and immobilized on a surface (30) of substrate, and comprising two high **molecular weight** components, each including polyglycans or polypeptides.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of preparing a coated substrate, which comprises:

(1) providing a first high **molecular weight** component including polyglycans or polypeptides;

(2) providing a substrate;

(3) immobilizing the first high **molecular weight** component on the surface of the substrate; and

(4) contacting the first high **molecular weight** component with a second high **molecular weight** component. The contacting step occurs before, during, or after the immobilizing step, thus forming an immobilized bioactive hydrogel coating on the surface of the substrate.

USE - The coated substrate is used as a medical device including active or passive medical devices, e.g. ex vivo bioreactors for liver, kidney or other organ support systems, catheters, artificial arteries, artificial organs, tissue fragment-containing devices, cell-containing devices, ligament replacements, bone replacements, glucose sensors, coronary pacemakers, lap-bands, monitors, artificial larynxes, prostheses, brain stimulators, bladder pacemakers, shunts, stents, tubes, defibrillators, cardioverters, heart valves, joint replacements, fixation devices, ocular implants, cochlear implants, breast implants, neurostimulators, bone growth stimulators, vascular grafts, muscle stimulators, left ventricular assist devices, pressure sensors, vagus nerve stimulators, drug delivery systems, sutures, staples, or cell scaffolding materials (all claimed).

ADVANTAGE - The cross-linked bioactive hydrogel matrices improves the integration and performance of medical devices. The coated substrate modulates the acute response of a host animal to polymeric materials used for medical device manufacture, not by changing the material's properties, but by changing the localized tissue response to the implanted material.

DESCRIPTION OF DRAWING(S) - The figure illustrates a polyglycan immobilized to a surface of a medical device and a polypeptide associated with the polyglycan to form a hydrogel.

Gelatin 15
Dextran 20
Surface of substrate 30
Covalent linkages 40
Substrate 60
Dwg.4B/9

L10 ANSWER 4 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-577238 [54] WPIDS
DOC. NO. NON-CPI: N2003-458818
DOC. NO. CPI: C2003-156038

TITLE: Reverse micelle composition useful for treating e.g. prostate cancer comprises a surfactant, hydrophilic phase, biological molecule, and a triester.
DERWENT CLASS: A96 B05 B07 D16 D21 P33
INVENTOR(S): CONSTANTINIDES, P P; JANG, E; LIANG, L
PATENT ASSIGNEE(S): (DORB-N) DOR BIOPHARMA INC
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003047494	A2	20030612	(200354)*	EN	25

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

AU 2002362040	A1	20030617	(200419)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003047494	A2	WO 2002-US38474	20021203
AU 2002362040	A1	AU 2002-362040	20021203

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2002362040	A1	Based on	WO 2003047494

PRIORITY APPLN. INFO: US 2002-377674P 20020503; US 2001-336471P 20011203; US 2002-354720P 20020205

AN 2003-577238 [54] WPIDS

AB WO2003047494 A UPAB: 20030821

NOVELTY - A reverse micelle composition comprises a surfactant, hydrophilic phase, biological molecule, and a triester (less than 10 weight%).

ACTIVITY - Cytostatic; Antiinfertility; Analgesic; Gynecological; Depilatory; Auditory; Antisickling; Vasotropic; Antidiabetic; Osteopathic; Endocrine-Gen.; Anticoagulant; Antimicrobial; Immunosuppressive; Antiasthmatic; Antiallergic. Sprague-Dawley rats were administered intraduodenally with a test reverse micelle formulation (600 micrograms) containing human growth hormone (hGH) in Acconon CC-12 (polyoxyethylene 12 capric/caprylic glycerides) or a control formulation containing aqueous growth hormone or Acconon CC-12 (polyoxyethylene 12 capric/caprylic glycerides). Blood samples were collected and analyzed for the presence of hGH by an enzyme-linked immunosorbent assay (ELISA). The test composition promoted the absorption of hGH with a value of 2 (no units given) after approximately half an hour while no absorption was observed with the control composition.

USE - For delivering a biological molecule; for diagnosing and treating at least one symptom associated with diseases e.g. prostate cancer, endometriosis or precocious puberty, uterine lelomyotama,

fertility disorder, premenopausal breast cancer, endometiral cancer, ovarian cancer, benign prostatic hypertrophy, functional bowel disease, cluster headache, premenstrual syndrome, idiopathic hirsuitism, hirsuitism second to polycystic ovarian disease, adenomyosis, Meniere's disease, sickle cell anemia associated priapism, catamental pneumothorax, hypopituitarism, hypothyroidism, human growth hormone deficiency, Cushing's syndrome, nutritional short stature, intrauterine growth retardation, Russell Silver syndrome, achondroplasia, diabetes, bone-reabsorption disease (e.g. osteoporosis, metastatic bone cancer, osteolytic lesions with an orthopedic implant, Paget's disease, or bone loss associated with hyperparathyroidism), and blood clotting in animals (preferably humans) (all claimed). Also useful for treating infectious diseases, immune disorders (e.g. autoimmune disorders, asthma, allergies); as vaccines; for producing antibodies for use in passive immunotherapy; and as a prophylactic, therapeutic, diagnostic or a cosmetic. The biological molecules delivered include therapeutic agents, diagnostic agents, antigens, antibodies, peptides, polypeptides, viruses, nucleic acids, growth factors, cytokines, and drugs.

ADVANTAGE - The composition promotes transmucosal absorption of drugs, especially drugs with poor intrinsic bioavailability, e.g. peptides, proteins, vaccines and nucleic acids and promotes absorption of biological molecules across mucosal epithelial barriers. The composition reduces the dosage of a biological molecule necessary to achieve a prophylactic or therapeutic effect and thus reduces the toxicity associated with administering higher dosages of certain biological molecules. The composition also reduces the dosage of a diagnostic agent necessary to diagnose or monitor the state of a disease. The composition provides high bioavailability of peptides or proteins without the need for complex water-in-oil microemulsions.
Dwg.0/4

L10 ANSWER 5 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-607771 [57] WPIDS
DOC. NO. NON-CPI: N2003-484668
DOC. NO. CPI: C2003-165499
TITLE: Reverse micelle composition useful for treating e.g. prostate cancer comprises a surfactant, hydrophilic phase, biological molecule, polymeric stabilizer, and a triester.
DERWENT CLASS: A96 B05 B07 D21 P33
INVENTOR(S): CONSTANTINIDES, P P; JANG, E; LIANG, L
PATENT ASSIGNEE(S): (DORB-N) DOR BIOPHARMA INC; (CONS-I) CONSTANTINIDES P P; (JANG-I) JANG E; (LIAN-I) LIANG L
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003047493	A2	20030612	(200357)*	EN	32
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
AU 2002362039	A1	20030617	(200419)		
EP 1460992	A2	20040929	(200463)	EN	

R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
US 2005079145 A1 20050414 (200526)
JP 2005515197 W 20050526 (200535) 43

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2003047493	A2		WO 2002-US38473	20021203
AU 2002362039	A1		AU 2002-362039	20021203
EP 1460992	A2		EP 2002-797165	20021203
			WO 2002-US38473	20021203
US 2005079145	A1	Provisional	US 2001-336873P	20011203
		Provisional	US 2002-354774P	20020205
		Provisional	US 2002-377691P	20020503
			WO 2002-US38473	20021203
			US 2004-497775	20041119
JP 2005515197	W		WO 2002-US38473	20021203
			JP 2003-548757	20021203

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2002362039	A1	Based on	WO 2003047493
EP 1460992	A2	Based on	WO 2003047493
JP 2005515197	W	Based on	WO 2003047493

PRIORITY APPLN. INFO: US 2002-377691P 20020503; US 2001-336873P 20011203; US 2002-354774P 20020205; US 2004-497775 20041119

AN 2003-607771 [57] WPIDS

AB WO2003047493 A UPAB: 20030906

NOVELTY - A reverse micelle composition comprises a surfactant, hydrophilic phase, biological molecule, polymeric stabilizer, and a triester (less than 10 weight%).

ACTIVITY - Cytostatic; Antifertility; Analgesic; Gynecological; Depilatory; Auditory; Antisickling; Vasotropic; Antidiabetic; Osteopathic; Endocrine-Gen.; Anticoagulant; Antimicrobial; Immunosuppressive; Antiasthmatic; Antiallergic. Sprague-Dawley rats were administered intraduodenally with a test reverse micelle formulation (600 micrograms) containing human growth hormone (hGH) in Acconon CC-12 (polyoxyethylene 12 capric/caprylic glycerides) or a control formulation containing aqueous growth hormone or Acconon CC-12 (polyoxyethylene 12 capric/caprylic glycerides). Blood samples were collected and analyzed for the presence of hGH by an enzyme-linked immunosorbent assay (ELISA). The test composition promoted the absorption of hGH with a value of about 2 (no units given) after approximately half an hour while little to no absorption was detected with the control composition.

MECHANISM OF ACTION - Vaccine.

USE - For delivering a biological molecule; for diagnosing and treating at least one symptom associated with diseases e.g. prostate cancer, endometriosis or precocious puberty, uterine lelomyotama, fertility disorder, premenopausal breast cancer, endometiral cancer, ovarian cancer, benign prostatic hypertrophy, functional bowel disease, cluster headache, premenstrual syndrome, idiopathic

hirsuitism, hirsuitism second to polycystic ovarian disease, adenomyosis, Meniere's disease, sickle cell anemia associated priapism, catamental pneumothorax, hypopituitarism, hypothyroidism, human growth hormone deficiency, Cushing's syndrome, nutritional short stature, intrauterine growth retardation, Russell Silver syndrome, achondroplasia, diabetes, bone-reabsorption disease (e.g. osteoporosis, metastatic bone cancer, osteolytic lesions with an orthopedic implant, Paget's disease, or bone loss associated with hyperparathyroidism), and blood clotting in animals (preferably humans) (all claimed). Also useful for treating infectious diseases, immune disorders (e.g. autoimmune disorders, asthma, allergies); as vaccines; for producing antibodies for use in passive immunotherapy; and as a prophylactic, therapeutic, diagnostic or a cosmetic. The biological molecules delivered include therapeutic agents, diagnostic agents, antigens, antibodies, peptides, polypeptides, viruses, nucleic acids, growth factors, cytokines, and drugs.

ADVANTAGE - The composition promotes transmucosal absorption of drugs, especially drugs with poor intrinsic bioavailability, e.g. peptides, proteins, vaccines and nucleic acids and promotes absorption of biological molecules across mucosal epithelial barriers. The reverse micelles are physically stabilized in the presence of gastrointestinal fluid, water, and other hydrophilic solvents. The composition reduces the dosage of a biological molecule necessary to achieve a prophylactic or therapeutic effect and thus reduces the toxicity associated with administering higher dosages of certain biological molecules. The composition also reduces the dosage of a diagnostic agent necessary to diagnose or monitor the state of a disease. The stabilizer improves the stability of the composition in the gastrointestinal tract and results in sustained release of biological molecules with slower leakage. The composition provides high bioavailability of peptides or proteins without the need for complex water-in-oil microemulsions.

Dwg.0/4

L10 ANSWER 6 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-268905 [31] WPIDS
DOC. NO. NON-CPI: N2002-209310
DOC. NO. CPI: C2002-079723
TITLE: Modulated release aerosol formulation useful for treating oral or nasal inhalation-treated diseases such as asthma comprises block copolymer construct comprising selected medicament and a fluid carrier.
DERWENT CLASS: A96 B05 B07 P32
INVENTOR(S): ADJEI, A L; CUTIE, A J; ZHU, Y
PATENT ASSIGNEE(S): (AERO-N) AEROPHARM TECHNOLOGY INC
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002005785	A1	20020124	(200231)*	EN	37
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2001081288	A	20020130	(200236)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002005785	A1	WO 2001-US41129	20010625
AU 2001081288	A	AU 2001-81288	20010625

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001081288	A	Based on	WO 2002005785

PRIORITY APPLN. INFO: US 2000-702319 20001031; US 2000-219054P 20000718

AN 2002-268905 [31] WPIDS

AB WO 200205785 A UPAB: 20020516

NOVELTY - A modulated release aerosol formulation comprises polymeric construct comprising biodegradable ABA block copolymer comprising selected medicament and a fluid for carrying, and delivering the construct.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(A) preparation of the aerosol formulation comprising

(i) combining the construct with the copolymer to form the polymeric construct;

(ii) combining the construct with the fluid carrier to form a mixture; and

(iii) dispersing the mixture. The medicament is associated with the copolymer to provide effective doses; and

(B) a metered dose inhaler containing the aerosol formulation.

ACTIVITY - Antiasthmatic; Antidiabetic; Cytostatic; Antiallergic; Antiinflammatory; Antianginal.

MECHANISM OF ACTION - None given.

USE - For treating a human being or another animal a condition capable of treatment by oral or nasal inhalation (claimed). For treating conditions e.g. asthma, chronic obstructive pulmonary disease, diabetes, hormone replacement, cancer, erythropoiesis, infection, allergic rhinitis, rhinitis, angina or local infection.

ADVANTAGE - The composition is stable, easily manufactured and effective when administered as fluid dispersed particles to the lung of the patient. The composition provides slow release of the medicament.

Dwg.0/0

L10 ANSWER 7 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-615726 [58] WPIDS

DOC. NO. CPI: C2003-167860

TITLE: Biocompatible, biodegradable water absorbent polymeric material used e.g. for medical biomaterials and diapers, comprises polymer formed by polymer polymer intercoupling interaction between natural water soluble and synthetic polymers.

DERWENT CLASS: A18 A96 A97 C04 D22 F06

INVENTOR(S): BUCEVSCHI, M D; COLT, M

PATENT ASSIGNEE(S): (BUCE-I) BUCEVSCHI M D; (COLT-I) COLT M; (EXOT-N) EXOTECH BIO SOLUTION LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002193516	A1	20021219	(200358)*		15
US 6833488	B2	20041221	(200501)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002193516	A1	US 2001-823612	20010330
US 6833488	B2	US 2001-823612	20010330

PRIORITY APPLN. INFO: US 2001-823612 20010330

AN 2003-615726 [58] WPIDS

AB US2002193516 A UPAB: 20030910

NOVELTY - Biocompatible, biodegradable water absorbent polymeric material (I) comprises polymer formed by polymer polymer intercoupling interaction between natural water-soluble polymer (A) or its derivatives, and synthetic polymer (B). (A) Comprises nonionic, anionic, cationic and/or amphoteric polymers. (B) Is a reactive synthetic copolymer having a backbone with specific polymeric subunits.

DETAILED DESCRIPTION - Biocompatible, biodegradable macromolecular water absorbent polymeric material has a three-dimensional configuration with intermolecular covalent bonds, and contains free functional groups comprising OH, SH, NH2 and COOH. The polymer of the polymeric material, is formed by polymer polymer intercoupling interaction between a natural water soluble polymer (A) or its derivatives having a **molecular weight** of 20000-500000 **Da**, and a synthetic polymer (B), in a ratio of 15:85-85:15.

(A) Comprises nonionic (A1), anionic (A2), cationic (A3) and/or amphoteric (A4) natural, partially denatured or chemically modified polymers. (A1) Does not dissociate in water, and undergoes polymer polymer intercoupling reactions, and has only free hydroxyl groups in an amount of at least 0.005 moles OH/g, and optionally contains nonionic groups. (A2) dissociates in water to form anions and undergoes polymer polymer intercoupling reactions, and optionally contains nonionic groups. (A3) Dissociates in water to form cations and undergoes polymer polymer intercoupling reactions, and optionally contains nonionic groups. (A4) Dissociates in water to form both anions and cations and undergoes polymer polymer intercoupling reactions.

(A) Is capable of undergoing polymer-polymer intercoupling. Polymer (B) Is a reactive synthetic copolymer having a **molecular weight** of 10000-500000 **Da**, derived from a vinyl monomer and an ethylenically unsaturated monomer. The copolymer has a backbone with polymeric sub-units Rn and Rr, where R represents a sub-unit covalently bonded to the polymer backbone, n represents non-reactive chemical functional groups and r represents reactive chemical functional groups.

An INDEPENDENT CLAIM is included for preparing (I).

USE - Used in personal care products which absorb body fluids, such as baby diapers, incontinence products and feminine hygiene products, in soil conditioning, as drying agents of hydrophobic liquids such as petroleum products or fuels and for medical biomaterials (claimed), as hydrogels and for agromaterials.

ADVANTAGE - (I) Has improved biocompatibility on contact with the

human body. The water absorbing hygienic products obtained using (I) have good biodegradability in a natural medium after use. (I) Has improved absorption and absorption rate on contact with respect to biological fluids such as urine and blood comprising amphoteric polymers with anticoagulant properties. The material is prepared in a liquid-liquid heterogeneous system at ambient temperature with reduced energy consumption compared to conventional methods. The process for preparing (I) avoids toxic effects due to the formation of a three-dimensional network between functional groups.
Dwg.0/0

L10 ANSWER 8 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-055320 [07] WPIDS
CROSS REFERENCE: 2002-061974 [73]
DOC. NO. CPI: C2002-015791
TITLE: New preparation of modified mammalian blood or urine used to treat e.g. rheumatic and autoimmune disease.
DERWENT CLASS: B04 D16
INVENTOR(S): BREIVOGEL, B; KIEF, H
PATENT ASSIGNEE(S): (BREI-I) BREIVOGEL B
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001080864	A2	20011101	(200207)*	EN	30
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001065906	A	20011107	(200219)		
EP 1278530	A2	20030129	(200310)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
CN 1426304	A	20030625	(200362)		
JP 2003531175	W	20031021	(200373)		31
EP 1278530	B1	20050615	(200544)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001080864	A2	WO 2001-EP4726	20010426
AU 2001065906	A	AU 2001-65906	20010426
EP 1278530	A2	EP 2001-943290	20010426
		WO 2001-EP4726	20010426
CN 1426304	A	CN 2001-808679	20010426
JP 2003531175	W	JP 2001-577963	20010426
		WO 2001-EP4726	20010426
EP 1278530	B1	EP 2001-943290	20010426
		WO 2001-EP4726	20010426
	Related to	EP 2005-7256	20050403

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2001065906	A	Based on	WO 2001080864
EP 1278530	A2	Based on	WO 2001080864
JP 2003531175	W	Based on	WO 2001080864
EP 1278530	B1	Based on	WO 2001080864

PRIORITY APPLN. INFO: US 2000-207286P 20000530; US 2000-199833P 20000426

AN 2002-055320 [07] WPIDS

CR 2002-061974 [73]

AB WO 200180864 A UPAB: 20020204

NOVELTY - Chemical modification of mammalian urine or blood, producing a new modified mammal urine or blood products.

DETAILED DESCRIPTION - Chemical modification of mammalian urine comprises collecting the urine, treating it with an **oxidizing** agent in a gas atmosphere of about 90-100% (v/v) oxygen in a container and removing substances with a low **molecular weight** (**MW**) to yield a modified mammal urine. Alternatively, chemical modification of mammalian blood comprises collecting blood from a mammal into a container having reduced internal pressure in the presence of an anticoagulant such as **heparin**, maintaining an oxidative atmosphere and if necessary adding an **oxidizing** agent , adding a diluent, preferably isotonic sterile saline, mixing the so obtained fraction, aging the fraction for a sufficient amount of time by storing the fraction and diluting to the desired concentration.

ACTIVITY - Immunosuppressive, antiallergic, antirheumatic; immunosuppressive; dermatological.

MECHANISM OF ACTION - None give.

USE - The modified blood or urine products are used to treat disorders of the immune system including allergic diseases, rheumatic diseases, autoimmune diseases and immune deficiencies including eczema.

Dwg.0/0

L10 ANSWER 9 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-147075 [15] WPIDS

DOC. NO. CPI: C2001-043453

TITLE: Medium **molecular weight** **heparin** composition, used for the treatment of thrombotic conditions e.g. deep vein thrombosis, comprises a mixture of sulfated oligosaccharides having a **molecular weight** of 6000-12000 **Da**.

DERWENT CLASS: A11 A96 B04

INVENTOR(S): HIRSH, J; WEITZ, J I

PATENT ASSIGNEE(S): (HAMI-N) HAMILTON CIVIC HOSPITALS RES DEV INC; (WEIT-I) WEITZ J I

COUNTRY COUNT: 95

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001002443	A1	20010111	(200115)*	EN	82

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO

RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000056682 A 20010122 (200125)
EP 1192187 A1 20020403 (200230) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
BR 2000012202 A 20020402 (200231)
CZ 2001004665 A3 20020515 (200241)
KR 2002032444 A 20020503 (200270)
HU 2002001712 A2 20021028 (200277)
CN 1371391 A 20020925 (200305)
JP 2003504428 W 20030204 (200320) 100
ZA 2001010525 A 20030528 (200341) 89
MX 2002000142 A1 20030701 (200420)
NZ 516229 A 20040827 (200460)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001002443	A1	WO 2000-CA774	20000629
AU 2000056682	A	AU 2000-56682	20000629
EP 1192187	A1	EP 2000-941847	20000629
		WO 2000-CA774	20000629
BR 2000012202	A	BR 2000-12202	20000629
		WO 2000-CA774	20000629
CZ 2001004665	A3	WO 2000-CA774	20000629
		CZ 2001-4665	20000629
KR 2002032444	A	KR 2001-716877	20011228
HU 2002001712	A2	WO 2000-CA774	20000629
		HU 2002-1712	20000629
CN 1371391	A	CN 2000-812090	20000629
JP 2003504428	W	WO 2000-CA774	20000629
		JP 2001-508230	20000629
ZA 2001010525	A	ZA 2001-10525	20011221
MX 2002000142	A1	WO 2000-CA774	20000629
		MX 2002-142	20020107
NZ 516229	A	NZ 2000-516229	20000629
		WO 2000-CA774	20000629

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000056682	A	Based on	WO 2001002443
EP 1192187	A1	Based on	WO 2001002443
BR 2000012202	A	Based on	WO 2001002443
CZ 2001004665	A3	Based on	WO 2001002443
HU 2002001712	A2	Based on	WO 2001002443
JP 2003504428	W	Based on	WO 2001002443
MX 2002000142	A1	Based on	WO 2001002443
NZ 516229	A	Based on	WO 2001002443

PRIORITY APPLN. INFO: US 1999-154744P 19990917; US 1999-141865P 19990630

AN 2001-147075 [15] WPIDS

AB WO 200102443 A UPAB: 20010317
NOVELTY - Medium **molecular weight heparin** (MMWH) composition comprises a mixture of sulfated oligosaccharides having a **molecular weight** of 6000-12000 **Da**

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a medium **molecular weight heparin** (MMWH2) composition comprising a mixture of oligosaccharides derived from **heparin**, and having the following characteristics:

(a) antithrombin and **heparin** cofactor II (HCII) related anticoagulant activity in vitro;

(b) oligosaccharides which are too short to bridge thrombin to fibrin, but long enough to bridge antithrombin or HCII to thrombin;

(c) at least 15, 20, 25, 30, 35, or 40 % of the oligosaccharides having at least one or more pentasaccharide sequence;

(d) enriched with oligosaccharides of **molecular weight** ranges 6000-11000, 7000-10000, 7500-10000, 7800-10000, 7800-9800, 7800-9600 or 8000-9600 **Da**;

(e) oligosaccharides having a mean **molecular weight** of 7800-10000 (preferably 7800-9800, especially 8000-9800) **Da**;

(f) at least 30, 35, 40, 45, or 50 % of the oligosaccharides have a **molecular weight** of at least 6000 (preferably at least 8000) **Da**;

(g) a polydispersity of 1.1-1.5 (preferably 1.2-1.4, especially 1.3);

(h) similar anti-factor Xa and anti-factor IIa activities, preferably in a ratio of anti-factor Xa to anti-factor IIa activity of 2:1-1:1, especially 1.5:1-1:1;

(i) an anti-factor Xa activity of 80-155 (preferably 90-130 (especially 100-110) IU/mg and/or

(j) an anti-factor IIa activity of 20-150 (preferably 40-100 (especially 90-100) IU/mg; and

(2) the preparation of a MMWH composition comprising:

(i) subjecting unfractionated **heparin** to a limited periodate oxidation reaction such that only iduronic acids of the unfractionated **heparin** are **oxidized**;

(ii) subjecting the **oxidized** unfractionated **heparin** to alkaline hydrolysis; and

(iii) recovering the MMWH composition, containing a mixture of sulfated oligosaccharides having a **molecular weight** of 8000-12000 **Da**.

ACTIVITY - Thrombolytic; anticoagulant; antiatherosclerotic; cardiant.

A study was carried out to compare the efficacy of MMWH and LMWH in the treatment of deep vein thrombosis in rabbits. Twenty four New Zealand White male rabbits underwent surgery which introduced a thrombectomy catheter into the jugular vein. Four centimeters of the jugular vein was damaged by 15 passages of inflated balloon catheter. Clots were then induced using 1 micro Ci of I125-labelled rabbit fibrinogen. Twenty five minutes into thrombus maturation the rabbits received: (a) sterile saline (1 ml); (b) LMWH (1 mg/kg or 3 mg/kg); or (c) MMWH (V-21; 1 mg/kg or 3 mg/kg). Blood was collected prior to surgery, and then after 5 minutes, and then after 1, 3, 6, 9, 12, and 24 hours after clot maturation. The results are shown in the figure.

MECHANISM OF ACTION - Factor Xa inhibitor; factor IIa inhibitor.

USE - The MMWH compositions are used in the treatment of thrombotic conditions such as arterial thrombosis, coronary artery thrombosis, venous thrombosis or pulmonary embolism. The MMWH compositions are also used for the prevention of thrombus formation in patients at risk of developing thrombosis, such as patients who have undergone a medical procedure, such as cardiac surgery,

cardiopulmonary bypass, catheterization or atherectomy, or patients suffering from a medical condition which disrupts hemostasis, e.g. coronary artery disease or atherosclerosis. The MMWH compositions may also be used for the treatment of deep vein thrombosis in patients who have undergone orthopedic surgery (all claimed).

ADVANTAGE - The **heparin** chains are too short to bridge thrombin to fibrin, but are long enough to bridge antithrombin to thrombin. The MMWH compositions inhibit fibrin-bound thrombin and fluid-phase thrombin equally well.

Dwg.0/41

L10 ANSWER 10 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-102618 [11] WPIDS
DOC. NO. CPI: C2001-030011
TITLE: Promotion of bone or cartilage tissue growth using injectable materials comprising a hyaluronic acid-linker-sulfated polysaccharide material which can bind and release growth factors.
DERWENT CLASS: A11 A96 B04
INVENTOR(S): LIU, L; SPIRO, R C
PATENT ASSIGNEE(S): (ORQU-N) ORQUEST INC; (DEPU-N) DEPUY ACROMED INC
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000078356	A1	20001228	(200111)*	EN	23
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000058778	A	20010109	(200122)		
US 6288043	B1	20010911	(200154)		
EP 1187636	A1	20020320	(200227)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SI					
JP 2003502389	W	20030121	(200308)		27
NZ 515988	A	20031219	(200404)		
AU 771500	B2	20040325	(200454)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000078356	A1	WO 2000-US16793	20000616
AU 2000058778	A	AU 2000-58778	20000616
US 6288043	B1	US 1999-336005	19990618
EP 1187636	A1	EP 2000-944722	20000616
		WO 2000-US16793	20000616
JP 2003502389	W	WO 2000-US16793	20000616
		JP 2001-504418	20000616
NZ 515988	A	NZ 2000-515988	20000616
		WO 2000-US16793	20000616
AU 771500	B2	AU 2000-58778	20000616

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000058778	A	Based on	WO 2000078356
EP 1187636	A1	Based on	WO 2000078356
JP 2003502389	W	Based on	WO 2000078356
NZ 515988	A	Based on	WO 2000078356
AU 771500	B2	Previous Publ.	AU 2000058778
		Based on	WO 2000078356

PRIORITY APPLN. INFO: US 1999-336005 19990618
AN 2001-102618 [11] WPIDS
AB WO 200078356 A UPAB: 20010224
NOVELTY - A hyaluronic acid (HA), which is cross-linked through linking groups to a sulfated polysaccharide (SP), is used as an injectable composition for promoting bone or cartilage tissue growth. The linking groups are diamines or diamine-polyalkylene glycols.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) inducing growth of bone or cartilage tissue in vivo, by administering an injectable composition comprising (i) a composition as described above and (ii) a growth factor at the desired tissue growth site; and

(2) preparation of an injectable gel for supporting repair of bone or cartilage, comprising: (i) **oxidizing** HA to form a modified HA containing aldehyde groups; (b) reacting the modified HA with a linking agent containing terminal amine groups to form a HA with pendant linking groups and terminal amine groups; and (c) reacting this HA with a modified SP containing aldehyde groups, to covalently link the SP to the linking groups.

ACTIVITY - Osteopathic.

The effect of hyaluronate-**heparin** imine-linked (HAHPi) gels, which contained FGF-2, on periosteal bone formation, was examined in Sprague-Dawley rats (4-6 weeks old; 140-160 g; male). 50 micro l aliquots of gel formulations containing FGF-2 (10 ng-1 mg/ml), or control carrier solution, were injected into pockets created under the periosteum of the parietal bone of the rats. The animals were sacrificed after 14 days and the thickness of the parietal bone, excluding the thickness of the periosteum, was examined. The mean thickness of the parietal bone was (i) 660 micro m for rats treated with a HAHPi/FGF-2 gel, (ii) 294 micro m for rats treated with a FGF-2/buffer formulation, (iii) 283 micro m for rats treated with a HA/FGF-2 formulation and (iv) 309 micro m for rats treated with HAHPi alone.

MECHANISM OF ACTION - None given.

USE - The injectable composition is useful for inducing tissue growth at a target bone or cartilage site. It can be used for filling of bone defects, for fracture repair or for grafting periodontal defects.

ADVANTAGE - Growth factors are capable of binding specifically to the gels and being released by the gels. This release occurs in a controlled manner that is dependent on the density of the gel. The HA component chiefly imparts the property of making the composition injectable and retainable at the site of desired tissue growth.
Dwg.0/5

L10 ANSWER 11 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-061894 [05] WPIDS
CROSS REFERENCE: 1996-435551 [44]; 1998-347378 [30]
DOC. NO. CPI: C2000-017040
TITLE: Inhibiting the assembly of intrinsic tenase complex.

DERWENT CLASS: B04
INVENTOR(S): HIRSH, J; WEITZ, J I
PATENT ASSIGNEE(S): (HAMI-N) HAMILTON CIVIC HOSPITALS RES DEV INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6001820	A	19991214	(200005)*		47

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 6001820	A	CIP of	US 1995-412332	19950331
		CIP of	US 1995-540324	19951006
		CIP of	US 1996-624327	19960329
			US 1997-870528	19970606

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 6001820	A	CIP of	US 5744457
		CIP of	US 5763427

PRIORITY APPLN. INFO: US 1997-870528 19970606; US 1995-412332 19950331; US 1995-540324 19951006; US 1996-624327 19960329

AN 2000-061894 [05] WPIDS
CR 1996-435551 [44]; 1998-347378 [30]
AB US 6001820 A UPAB: 20000128
NOVELTY - Inhibiting the assembly of intrinsic tenase complex in a mammal comprises administration of an anticoagulant amount of **heparin** cofactor II-specific (HCII-specific) catalytic agent.

DETAILED DESCRIPTION - Inhibiting the assembly of intrinsic tenase complex in a mammal comprises administration of an anticoagulant amount of HCII-specific catalytic agent. The HCII-specific catalytic agent having:

(a) a **heparin** cofactor II specific activity against HCII of 2-5 units/mg in an antifactor IIa assay;

(b) an antithrombin III (ATIII) specific activity against factor Xa of 0.2-1.5 units/mg in an antifactor Xa assay; and

(c) a solubility in aqueous media of 150-1000 mg/ml.

The HCII-specific catalytic agent is a polyanionic carbohydrate of 10-24 monosaccharide units.

INDEPENDENT CLAIMS are also included for:

(A) inhibiting the activation of blood coagulation Factor IX by Factor XIa, comprising contacting a patient fluid with HCII-specific catalytic agent as above; and

(B) inhibiting the activation of blood coagulation Factor X by Factor IXa, comprising contacting a patient fluid with HCII-specific catalytic agent as above.

ACTIVITY - Cardiovascular; anticoagulant; cardiant; thrombolytic; antianginal; cerebroprotective; respiratory.

MECHANISM OF ACTION - Inhibits Factor Xa generation by disrupting assembly of intrinsic tenase by interfering with Factor IXa.

The difference between the mechanism of inhibition of coagulation

by HCII-specific catalytic agent V18 and low **molecular weight heparin** (LMWH) is illustrated in the figure.
The experiments were performed by comparing the ability of V18 and LMWH to prolong the whole blood clotting time with and without the addition of tissue factor. V18 prolonged the clotting time by impairing Factor IXa and Factor XIa activity with only minimal effects on the tissue factor clotting time, which stimulated clotting by activating Factor X. In contrast LMWH prolonged the clotting time and the tissue factor clotting time to a similar extent because it inhibited Factor Xa and thrombin which influenced both the clotting time and the tissue factor clotting time.

USE - The processes are used for inhibiting the assembly of intrinsic tenase complex, inhibiting the activation of blood coagulation Factor IX by Factor XIa, and inhibiting the activation of blood coagulation Factor X by Factor IXa in mammals (claimed).

The processes are used in the treatment of cardiovascular disease as antithrombotic agents and for preventing thrombosis in the circuit of cardiac bypass apparatus and in patients undergoing renal dialysis. Such cardiovascular diseases include unstable angina, acute myocardial infarction, cerebrovascular accidents, pulmonary embolism, deep vein thrombosis, and arterial thrombosis.

ADVANTAGE - The processes pacify blood clots by inactivating fibrin-bound thrombin at concentrations which do not produce abnormal bleeding and/or which can selectively block the coagulation cascade. The processes have minimal inhibitory activity against free thrombin.

DESCRIPTION OF DRAWING(S) - The figure illustrates the effect of HCII-specific catalytic agent V18 and low **molecular weight heparin**, respectively, on the whole blood clotting time in the absence and presence of tissue factor.
Dwg.18/23

L10 ANSWER 12 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-501676 [43] WPIDS
DOC. NO. CPI: C1998-151395
TITLE: Low **molecular weight** sulphated poly saccharide(s) - useful as anticoagulants.
DERWENT CLASS: B04
PATENT ASSIGNEE(S): (SEGK) SEIKAGAKU KOGYO CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 10218902	A	19980818	(199843)*		12

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 10218902	A	JP 1997-31489	19970131

PRIORITY APPLN. INFO: JP 1997-31489 19970131
AN 1998-501676 [43] WPIDS
AB JP 10218902 A UPAB: 19981028
Low **molecular weight** sulphated polysaccharides having basic repetitive disaccharide structure of hexosamine and uronic acid of formula (I) obtained by combination of disaccharide analysis of decomposition with glycosaminoglycan degrading enzyme and

high performance liquid chromatography (HPLC), and having the following physical properties: (A) mol% of delta Di-tri(U, 6, N)S at 65 molar% or over, provided that, delta Di-tri(U, 6, N)S represents R1-R3 = SO3; (B) APTT activity and/or anti-thrombin activity is 2 (particularly at most 1)% in comparison to that of standard **heparin**; and (C) the average **molecular weight** is 1000-8000 **Da**. Also claimed are: (1) low **molecular weight** sulphated polysaccharides of the disaccharide structure representing R1 = H, R2 = COMe and R3 = SO3-, particularly having an average **molecular weight** of 3500-6000 (preferably 1000-3500) **Da**; (2) low **molecular weight** polysaccharides having stimulative and/or inhibitive effects to cell proliferation activity of basic fibroblast proliferation factor at ratios of at least 50% with respect to that of standard **heparin**; (3) low **molecular weight** polysaccharides having antithrombin activity/APTT activity of 0-0.5 with respect to that of standard **heparin**; (4) the low **molecular weight** polysaccharides substantially having no stimulative activity for cell proliferation activity and at least 60% of inhibitive effect with respect to basic fibroblast proliferation factor; (5) low **molecular weight** sulphated polysaccharides prepared by: (a) partial de-sulphurylation, particularly at 2-85%, at 2-position of constructive uronic acid in sulphated polysaccharide having repetitive basic structure of hexosamine and uronic acid, particularly **heparin**; (b) cleavage between C-2 and C-3 of uronic acid having no sulphuric acid residue at 2-position with an **oxidising** reagent; and (c) cleavage of sulphated polysaccharide in the cleaved sugar residue, particularly the hexosamine of D-glucosamine and the uronic acid of D-glucuronic acid or L-iduronic acid; (6) partial de-sulphurylation carried out with an alkali, particularly at concentrations of 0.01-0.2 N, and lyophilisation; and (7) medicinal compositions containing the low **molecular weight** polysaccharides.

USE - The low **molecular weight** sulphated polysaccharides are useful as anticoagulant at doses of 0.1-100 mg/kg/day, optionally divided in several portions (e.g. as drip infusion).

ADVANTAGE - Partial de-sulphurylation may be controlled to give various low **molecular weight** sulphated polysaccharides.

Dwg.0/0

L10 ANSWER 13 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1998007882 EMBASE
TITLE: Expression cloning of a novel scavenger receptor from human endothelial cells.
AUTHOR: Adachi H.; Tsujimoto M.; Arai H.; Inoue K.
CORPORATE SOURCE: H. Adachi, Laboratory of Bioorganic Chemistry, Inst. of Physical/Chem. Res. (RIKEN), 2-1 Hirosawa, Wako-shi, Saitama 351-01, Japan. adachih@postman.riken.go.jp
SOURCE: Journal of Biological Chemistry, (1997) Vol. 272, No. 50, pp. 31217-31220.
Refs: 25
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry

Searcher : Shears 571-272-2528

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19980202
Last Updated on STN: 19980202

AB Scavenger receptors mediate the endocytosis of chemically modified lipoproteins, such as acetylated low density lipoprotein (Ac-LDL) and **oxidized** LDL (Ox-LDL), and have been implicated in the pathogenesis of atherosclerosis. The evidence that endothelial cells possess scavenger receptor activity is substantial, and this property is widely used in the isolation of endothelial cells from vascular tissues. In the current study, we have isolated, by expression cloning, the cDNA encoding a novel type of scavenger receptor expressed by endothelial cells (SREC), which mediates the binding and degradation of Ac-LDL. The primary structure of the molecule has no significant homology to other types of scavenger receptors, including the recently cloned endothelial cell Ox-LDL receptor, a member of the C-type lectin family. The cDNA encodes a protein of 830 amino acids with a calculated molecular mass of 85,735 **Da** (mature peptide). Chinese hamster ovary cells stably expressing SREC bound 125I-labeled Ac-LDL with high affinity (K(d) = 3.0 μg/ml, approximately 1.7 nM) and degraded them via an endocytic pathway. Association of DiII-Ac-LDL were effectively inhibited by Ox-LDL, malondialdehyde-modified LDL, dextran sulfate, and poly-inosinic acid, but not by natural LDL and **heparin**. The cloned receptor has several characteristic domain structures, including an N-terminal extracellular domain with five epidermal growth factor-like cysteine pattern signatures and an unusually long C-terminal cytoplasmic domain (391 amino acids) composed of a Set/Pro-rich region followed by a Gly-rich region.

L10 ANSWER 14 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1990-363660 [49] WPIDS
DOC. NO. NON-CPI: N1990-277473
DOC. NO. CPI: C1990-158032
TITLE: Blood glucose continuous determn. device - has micro-dialysing needle with semi-permeable plastic cover inserted into vein.
DERWENT CLASS: B04 D16 P31 P32 P34 S03 S05
INVENTOR(S): BERNARDI, L
PATENT ASSIGNEE(S): (AMPL-N) AMPLIFON SPA; (AMPL-N) AMPLISCIENTIFICA SR; (AMPL-N) AMPLISCIENTIFICA SRL
COUNTRY COUNT: 5
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 401179	A	19901205	(199049)*	EN	12
R: FR GB					
IT 1231916	B	19920115	(199238)		
US 5176632	A	19930105	(199304)		10
US 5298022	A	19940329	(199412)		10
EP 401179	B1	19960306	(199614)	EN	14
R: DE FR GB					
DE 69025646	E	19960411	(199620)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

EP 401179	A		EP 1990-830238	19900528
IT 1231916	B		IT 1989-48005	19890529
US 5176632	A		US 1990-527129	19900522
US 5298022	A	CIP of	US 1990-527129	19900522
			US 1993-238	19930104
EP 401179	B1		EP 1990-830238	19900528
DE 69025646	E		DE 1990-625646	19900528
			EP 1990-830238	19900528

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 5298022	A	CIP of	US 5176632
DE 69025646	E	Based on	EP 401179

PRIORITY APPLN. INFO: IT 1989-48005 19890529

AN 1990-363660 [49] WPIDS

AB EP 401179 A UPAB: 19971021

A device for continuous determn. of blood glucose in a diabetic patient over 24-36 h. comprises a pump (8) for injecting **heparin** saline solution from a container (2) through a micro-dialysing needle (4) inserted into a vein. The needle has a semipermeable plastic hollow fibre on its outer surface passing only low **mol. weight** substances of below 100000 **daltons** to give proportional equilibrium of glucose concentration on both sides.

The needle has an outgoing conduit to a sensor with a Pt-Ag electrode and an enzyme membrane containing glucose oxidase producing gluconic acid and H2O2, the latter decomposing with liberation of two electrons so that measurement of current indicates glucose concentration The concentration data may be transmitted to a computer and used to control injection of insulin and/or glucose at 1 min. intervals. A device for measuring blood lactate in an athlete or heart patient is also claimed, using a lactate oxidase containing membrane.

ADVANTAGE - Is of small size and can be worn by a patient while continuing normal activities.

Dwg.1/4

ABEQ US 5176632 A UPAB: 19930928

Device for the continuous monitoring of blood glucose levels over a period of 24-36 hrs. comprises a container with a saline soln. contg. **heparin** which is administered through a microdialyser unit having a needle mounted into the vein of a diabetic patient; the saline soln. is pumped to the microdialyser in which a semipermeable plastic hollow fibre membrane allows dialysis between the soln. and the patient's blood, so that only small mols. (Mr less than 100,000) can pass; an adjacent Pt-Ag electrode with an enzyme membrane contg. glucose oxidase facilitates the oxidn. of glucose to gluconic acid and H202, which is then decomposed by electron transfer, and the current flowing is a measure of the glucose level. The data is recorded with a computer, which is programmed to initiate the injection of insulin when the glucose level becomes critical. The dialysed saline soln. contains glucose (about 1/10-th of the blood content) and is discarded.

Similarly, the lactate levels in heart patients and athletes can be monitored, using a sensor with a membrane contg. lactase oxidase.

USE - Prods. facilitate automatic and continuous medical care for diabetics and heart patients.

2/4

ABEQ US 5298022 A UPAB: 19940510
Glucose is determined continuously and quantitatively in the blood over 24-36 hr. A) using a reservoir contg. a **heparin** contg. saline soln. and pumping means to pump the soln. through a microdialysing needle provided with a semi permeable plastic hollow fibre membrane on its outer surface allowing dialysis to occur between blood in a vein and the soln. and with only glucose and other substances of **mol. wt.** below 10)5) **daltons** able to pass through the fibre membrane by B) inserting the needle into a vein of a patient and the concentration of glucose and other substances reaches an equilibrium proportional to the actual concentration of glucose in the blood in the saline soln. with C) passing the glucose contg. saline soln. through an outgoing conduit of the needle to a sensor provided with a Pt/Ag electrode and an enzymatic membrane contg. glucose oxidase, which **oxidises** the glucose to gluconic acid and H2O2, which latter is decomposed with liberation of 2 electrons causing an electric current to flow, whose measurement provides an indication of the amount of glucose in the blood. The dialysed blood is not recirculated. The glucose contg. saline soln. contains 0.5-0.05 of the glucose concentration in the blood. The lactate content in blood can be determined analogously.

USE/ADVANTAGE - To detect glucose in the blood of a diabetic and lactate in the blood of an athlete or heart patient. Glucose and other substances can be readily determined without deposition of platelets and fibrin.

Dwg.0/0

ABEQ EP 401179 B UPAB: 19960405
A device for the continuous quantitative determination of glucose in the blood of a diabetic patient over a period of 24-36 hours, comprising: a container (2) for a **heparin**-containing solution; a micro-dialysing assembly including; (i) a vein catheter (38); (ii) a stylet (40) removably mounted within said catheter (38) for inserting the catheter (38) into a vein of the diabetic patient; (iii) a microdialysing needle (4) comprising a semipermeable hollow fibre membrane (16) on a tip portion thereof; pumping means (8) for feeding said solution to said microdialysing needle (4); a glucose sensor (6), in fluid communication with said microdialysing needle (4), comprising platinum (27) and silver (28) electrodes and an enzymatic membrane (25) containing glucose oxidase; said microdialysing needle (4) being insertable in a liquid-tight manner into said catheter (38) in place of said stylet (40), whereby said semipermeable hollow the membrane (16) protrudes beyond the tip of the catheter (38) into the blood stream flowing in the vein of the patient.

Dwg.1/6

L10 ANSWER 15 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1984-049439 [08] WPIDS
DOC. NO. CPI: C1984-020861
TITLE: Low **mol. weight heparin**(s) production - by depolymerising normal **heparin**, having improved therapeutic properties.
DERWENT CLASS: B04
INVENTOR(S): AMAYA, E; FUSSI, F; SMITH, M R
PATENT ASSIGNEE(S): (PHAA) PHARMACIA & UPJOHN; (HEPA-N) HEPAR INDS INC
COUNTRY COUNT: 18
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

ZA 8209463	A	19830822 (198408)*	10
EP 101141	A	19840222 (198409)	EN
R: AT BE CH DE FR GB IT LI LU NL SE			
PT 76111	A	19840131 (198410)	
AU 8310331	A	19840126 (198411)	
JP 59020302	A	19840202 (198411)	
DK 8303255	A	19840312 (198417)	
ES 8402319	A	19840416 (198423)	
CA 1195322	A	19851015 (198546)	
JP 04042401	B	19920713 (199232)	3
DK 172798	B	19990719 (199935)	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
ZA 8209463	A	ZA 1982-9463	19821223
EP 101141	A	EP 1983-300155	19830112
JP 59020302	A	JP 1983-3271	19830112
JP 04042401	B	JP 1983-3271	19830112
DK 172798	B	DK 1983-3255	19830714

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 04042401	B	Based on	JP 59020302
DK 172798	B	Previous Publ.	DK 8303255

PRIORITY APPLN. INFO: US 1982-399217 19820719

AN 1984-049439 [08] WPIDS

AB ZA 8209463 A UPAB: 19930925

Low **molecular weight heparin** fractions are prepared by acidifying normal **heparin** to obtain **heparinic** acid of pH about 3-5, and then depolymerising this by heating in the presence of an **oxidising** agent to obtain a prod. of **MW** about 4,000-12,000 **Dalton.**

The prod. has a ratio of anti-thrombotic activity to anti-coagulant activity which is superior to that of normal **heparin.** Fractions with differing ratio's may be chosen for differing therapeutic and pharmacological purposes. Yields are better than those of 65% obtd. in a known process, and prodts. are purer (Provisional basic previously advised in Week 8402)

0/0

FILE 'REGISTRY' ENTERED AT 16:46:40 ON 12 JUL 2005

E CHONDROITIN SULFATE/CN 5

L11 2 S E3 OR E5

E DERMATAN SULFATE/CN 5

L12 1 S E3

E HEPARAN SULFATE/CN 5

E HEPARAN SULFATES/CN 5

L13 1 S E5

L14 4 S L11 OR L12 OR L13

FILE 'CAPLUS' ENTERED AT 16:48:23 ON 12 JUL 2005

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON HEPARIN/CN

L2 46156 SEA FILE=CAPLUS ABB=ON PLU=ON L1 OR HEPARIN##

Searcher : Shears 571-272-2528

```
L11           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  "CHONDROITIN SULFATE"/CN
                OR "CHONDROITIN SULFATE A"/CN
L12           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "DERMATAN SULFATE"/CN
L13           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HEPARAN SULPHATE"/CN
L14           4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11 OR L12 OR L13
L15       60474 SEA FILE=CAPLUS ABB=ON  PLU=ON  L2 OR L14 OR (CHONDROITIN
                OR DERMATAN OR HEPARAN)(W)(SULFATE OR SULPHATE)
L16         517 SEA FILE=CAPLUS ABB=ON  PLU=ON  L15 AND (OXIDIS? OR
                OXIDIZ?)
L17          47 SEA FILE=CAPLUS ABB=ON  PLU=ON  L16 AND ((MOL OR MOLECULAR)
                (W)(WT OR WEIGH?) OR MW OR M W)
L18           4 SEA FILE=CAPLUS ABB=ON  PLU=ON  L17 AND (DA OR DALTON)


L19           0 L18 NOT L8

     (FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
    JICST-EPLUS, JAPIO' ENTERED AT 16:49:56 ON 12 JUL 2005)
L20          16 S L18
L21           1 S L20 NOT L9

L21  ANSWER 1 OF 1  WPIDS  COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER:      2005-371678 [38]   WPIDS
CROSS REFERENCE:       2003-521761 [49]
DOC. NO. CPI:          C2005-114999
TITLE:                 Treating a heterogeneous population of cancer by
                       introducing a therapeutic agent having a bispecific
                       reagent with two moieties into the living host cells.
DERWENT CLASS:         B04 D16
INVENTOR(S):           ROSE, S
PATENT ASSIGNEE(S):    (ONCO-N) ONCOLOGIC INC
COUNTRY COUNT:         1
PATENT INFORMATION:

     PATENT NO        KIND DATE     WEEK      LA   PG
     ------------------------------------------------
     US 2005113290    A1 20050526 (200538)*     64

APPLICATION DETAILS:

     PATENT NO      KIND                  APPLICATION          DATE
     ------------------------------------------------------------------
     US 2005113290  A1 Div ex          US 1997-782590       19970113
                                       US 2004-949671       20040925


PRIORITY APPLN. INFO: US 1997-782590       19970113; US
                      2004-949671       20040925
AN   2005-371678 [38]   WPIDS
CR   2003-521761 [49]
AB   US2005113290 A UPAB: 20050616
     NOVELTY - Treating a heterogeneous population of cancer cells in a
     living host by at least one of a first therapeutic agent and an
     additional therapeutic agent comprises introducing into the living
     host a first bispecific reagent having two moieties.
          DETAILED DESCRIPTION - The method of treating a heterogeneous
     population of cancer cells in a living host by at least one of a first
     therapeutic agent and an additional therapeutic agent, the living host
     being including normal cells growing in a normal extra-cellular matrix
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having at least collagen and fibronectin, the heterogeneous population of cancer cells growing in a cancer-altered extra-cellular matrix having at least cancer-altered antigenic epitopes, the heterogeneous population of cancer cells endogenously making and containing products including at least sulphated glycosaminoglycans, natural intra-cellular enzymes in the lysosomes, and natural intracellular material including DNA, histone, and complexes of DNA-histone, the DNA, histone, and complexes of DNA-histone having antigenic epitopes, the heterogeneous population of cancer cells including at least four sub-populations of cancer cells cited above further comprises introducing into the living host a first bispecific reagent having two moieties, a first moiety which is a non-mammalian enzyme moiety being a first enzyme moiety, the first bispecific reagent further having a second moiety including a targeting agent moiety which has a substantial affinity for the first antigenic receptor of the first target cancer cells and the first target normal cells, permitting the first bispecific reagent to bind to the first antigenic receptor of the first target cancer cells and of the first target normal cells, the first bispecific reagent being received and bound at the first antigenic receptor of the first target cancer cells and of the first target normal cells, the first bispecific reagent thereby being retained in the extra-cellular fluid for an extended period of time which enables the first enzyme moiety, to convert a substantial amount of the first therapeutic agent in the extra-cellular fluid into an insoluble non-digestible precipitate which is a first extra-cellular precipitate, the first extra-cellular precipitate being capable of remaining in the extra-cellular fluid adjacent to the first bispecific reagent for an extended period of time, administering to the living host the first therapeutic agent which is a soluble precipitable material and which is converted by the first enzyme moiety of the first bispecific reagent into the first extra-cellular precipitate, the first extra-cellular precipitate having at least one of a first antigenic epitope being an epitope which is an integral part of the structure of the first extra-cellular precipitate, a second antigenic epitope, and a neo-antigenic third epitope, the first extra-cellular precipitate forming in the extra-cellular fluid adjacent to the first bispecific reagent and being capable of remaining in the extra-cellular fluid adjacent to the first bispecific reagent for an extended period of time, continuing the introducing of the first therapeutic agent into the living host to increase the amount of the first extra-cellular precipitate forming in the extra-cellular fluid, the continued administration of the first therapeutic agent thereby causing an accumulation of first extra-cellular precipitate to form in the extra-cellular fluid, the accumulation of the first extra-cellular precipitate thereby having a plurality of antigenic epitopes which is proportional to the amount of accumulation, additionally introducing to the living host a second bispecific reagent having two moieties, a first moiety being a non-mammalian enzyme moiety which is a second enzyme moiety including a targeting agent moiety having a substantial affinity for at least one of the first antigenic epitope, the second antigenic epitope, and the neo-antigenic third epitope of the first extra-cellular precipitate, further permitting the second bispecific reagent to bind to at least one of the first antigenic epitope, the second antigenic epitope, and the neo-antigenic third epitope of the first extra-cellular precipitate, the second bispecific reagent being received and bound at the first extra-cellular precipitate which is retained in the extracellular fluid for an extended period of time, enabling the second enzyme moiety to convert a substantial amount of an additional therapeutic agent into a new form capable of remaining

in the extra-cellular fluid adjacent to the first extra-cellular precipitate to kill non-selectively all cells adjacent to the first extracellular precipitate, and additionally administering to the living host the additional therapeutic agent which is a soluble radioactive toxic agent to be converted by the second enzyme moiety into the new form capable of remaining in the extracellular fluid adjacent to the first extra-cellular precipitate for an extended period of time which is sufficient to kill non-selectively all cells adjacent to the first extra-cellular precipitate.

An INDEPENDENT CLAIM is also included for a therapeutic agent being a radio-labeled soluble precipitable material for use as a pro-drug which is to be converted into an insoluble and non-digestible radio-labeled precipitate by the action of a non-mammalian enzyme.

ACTIVITY - Cytostatic. No biological data given.

MECHANISM OF ACTION - Gene-Therapy.

USE - The methods and compositions of the present invention are useful in the general field of immunotherapy, in particular for treating cancer using soluble radioactive toxic agents that are introduced into the living host.

Dwg.0/44

(FILE 'CAPLUS' ENTERED AT 16:51:00 ON 12 JUL 2005)

L1	1	SEA FILE=REGISTRY ABB=ON PLU=ON HEPARIN/CN
L2	46156	SEA FILE=CAPLUS ABB=ON PLU=ON L1 OR HEPARIN##
L11	2	SEA FILE=REGISTRY ABB=ON PLU=ON "CHONDROITIN SULFATE"/CN OR "CHONDROITIN SULFATE A"/CN
L12	1	SEA FILE=REGISTRY ABB=ON PLU=ON "DERMATAN SULFATE"/CN
L13	1	SEA FILE=REGISTRY ABB=ON PLU=ON "HEPARAN SULPHATE"/CN
L14	4	SEA FILE=REGISTRY ABB=ON PLU=ON L11 OR L12 OR L13
L15	60474	SEA FILE=CAPLUS ABB=ON PLU=ON L2 OR L14 OR (CHONDROITIN OR DERMATAN OR HEPARAN)(W)(SULFATE OR SULPHATE)
L22	517	SEA FILE=CAPLUS ABB=ON PLU=ON (L15 OR LMWH OR HMWF) AND (OXIDIS? OR OXIDIZ?)
L23	47	SEA FILE=CAPLUS ABB=ON PLU=ON L22 AND ((MOL OR MOLECULAR)(W)(WT OR WEIGH?) OR MW OR M W)
L24	4	SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND (DA OR DALTON)
L25	0	L24 NOT L8

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 16:53:51 ON 12 JUL 2005)

L26	16	S L24
L27	0	S L26 NOT (L9 OR L21)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 16:56:51 ON 12 JUL 2005)

L1	1	SEA FILE=REGISTRY ABB=ON PLU=ON HEPARIN/CN
L2	46156	SEA FILE=CAPLUS ABB=ON PLU=ON L1 OR HEPARIN##
L11	2	SEA FILE=REGISTRY ABB=ON PLU=ON "CHONDROITIN SULFATE"/CN OR "CHONDROITIN SULFATE A"/CN
L12	1	SEA FILE=REGISTRY ABB=ON PLU=ON "DERMATAN SULFATE"/CN
L13	1	SEA FILE=REGISTRY ABB=ON PLU=ON "HEPARAN SULPHATE"/CN
L14	4	SEA FILE=REGISTRY ABB=ON PLU=ON L11 OR L12 OR L13
L15	60474	SEA FILE=CAPLUS ABB=ON PLU=ON L2 OR L14 OR (CHONDROITIN OR DERMATAN OR HEPARAN)(W)(SULFATE OR SULPHATE)
L29	364	SEA FILE=CAPLUS ABB=ON PLU=ON (L15 OR LMWF OR HMWF)(L)(OXIDIS? OR OXIDIZ?)
L35	17	SEA L29(L) HYDROXYL

L36 17 L35 NOT (L9 OR L21)

=> dup rem l36
PROCESSING COMPLETED FOR L36
L37 14 DUP REM L36 (3 DUPLICATES REMOVED)

L37 ANSWER 1 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-699433 [68] WPIDS
DOC. NO. CPI: C2004-247384
TITLE: Manufacture of photocrosslinked polysaccharide composition for medical kit, involves irradiating frozen solution containing photoreactive polysaccharide, aqueous solvent, alcohol, surfactant and chelating agent.
DERWENT CLASS: A11 A96 D22
INVENTOR(S): SATO, T
PATENT ASSIGNEE(S): (SEGK) SEIKAGAKU CORP
COUNTRY COUNT: 108
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004081054	A1	20040923	(200468)*	JA	31

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004081054	A1	WO 2004-JP3204	20040311

PRIORITY APPLN. INFO: JP 2003-65704 20030311
AN 2004-699433 [68] WPIDS
AB WO2004081054 A UPAB: 20041026
NOVELTY - A photoreactive polysaccharide obtained by coupling photoreactive group with polysaccharide, aqueous solvent capable of dissolving photoreactive polysaccharide, and at least one component chosen from alcohol miscible with solvent, surfactant and chelating agent are mixed to form solution. Solution is frozen, and frozen material is irradiated with light to manufacture photocrosslinked polysaccharide composition.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) photocrosslinked polysaccharide composition, which is manufactured by above method; and

(2) kit, which has extrudable injection tool filled with photocrosslinked polysaccharide composition.

USE - For kit (claimed) used for medical purposes, and biomedical material used for protecting wound portion and filling cavity of connective tissues.

ADVANTAGE - The photocrosslinked polysaccharide composition is

manufactured easily. Light cross-linking of the polysaccharide is carried out efficiently.
Dwg.0/3

L37 ANSWER 2 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-624545 [60] WPIDS
DOC. NO. NON-CPI: N2004-493901
DOC. NO. CPI: C2004-224523
TITLE: Treating a disease, e.g. cancer, AIDS, angiogenesis, restenosis, tuberculosis, multiple sclerosis, obesity, or malaria comprises administering a bioprobe comprising a susceptor and a ligand to a portion of a subject.
DERWENT CLASS: B04 D16 P33 P34 S03 S05
INVENTOR(S): DAUM, W; ELLIS-BUSBY, D; FOREMAN, A; GOLDSTEIN, R C; GWOST, D U; HANDY, E S; IVKOV, R; NEMKOV, V S; SCHROEDER HANDY, E
PATENT ASSIGNEE(S): (TRIT-N) TRITON BIOSYSTEMS INC
COUNTRY COUNT: 108
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004156852	A1	20040812	(200460)*		19
WO 2004071370	A2	20040826	(200460)	EN	

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004156852	A1	US 2003-360561	20030206
WO 2004071370	A2	WO 2004-US3549	20040206

PRIORITY APPLN. INFO: US 2003-360561 20030206
AN 2004-624545 [60] WPIDS
AB US2004156852 A UPAB: 20040920
NOVELTY - A therapeutic method comprises administering at least one bioprobe to a portion of a subject comprising a target, and administering energy from an energy source to the at least one bioprobe combined with the target, where the bioprobe comprises a susceptor and at least one ligand.
ACTIVITY - Cytostatic; Anti-HIV; Antiangiogenic; Vasotropic; Antitubercular; Tuberculostatic; Neuroprotective; Anorectic; Antimalarial. No biological data given.
MECHANISM OF ACTION - Gene Therapy.
USE - The method and bioprobe are useful for treating cancer, e.g. bone marrow, lung, vascular, neuro, colon, ovarian, breast, or prostate cancer, AIDS, adverse angiogenesis, restenosis, amyloidosis, tuberculosis, multiple sclerosis, obesity, malaria and illnesses due to viruses, such as HIV.
Dwg.0/5

L37 ANSWER 3 OF 14 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:19397 SCISEARCH
THE GENUINE ARTICLE: 876OZ
TITLE: Poly(vinyl alcohol) hydrogel fixation on poly(ethylene terephthalate) surface for biomedical application
AUTHOR: Li Y L; Neoh K G (Reprint); Kang E T
CORPORATE SOURCE: Natl Univ Singapore, Dept Chem & Biomol Engn, Kent Ridge, Singapore 119260, Singapore (Reprint); Natl Univ Singapore, Dept Chem & Biomol Engn, Singapore 119260, Singapore
chenkg@nus.edu.sg
COUNTRY OF AUTHOR: Singapore
SOURCE: POLYMER, (9 DEC 2004) Vol. 45, No. 26, pp. 8779-8789. ISSN: 0032-3861.
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 41
ENTRY DATE: Entered STN: 13 Jan 2005
Last Updated on STN: 13 Jan 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A surface modification technique was developed for the covalent immobilization of poly(vinyl alcohol) (PVA) hydrogel onto poly(ethylene terephthalate) (PET) to improve the biocompatibility of the film. The PET film was first graft copolymerized with poly(ethylene glycol) monomethacrylate (PEGMA) in the presence of ethylene glycol dimethacrylate (EGDMA) as crosslinker, and then **oxidized** with a mixture of acetic anhydride (Ac2O) and dimethyl sulfoxide (DMSO) to produce aldehyde groups on the PET surface. Finally, the prepared PVA solution was cast onto the film and covalently immobilized on the film through the reaction between the aldehyde groups on the PET film and the **hydroxyl** groups of PVA. The good attachment of the PVA layer to the PET film was confirmed by observing the cross-section of the PET-PVA film using scanning electron microscopy (SEM). **Heparin** was immobilized on the PVA layered PET using two different methods, physical entrapment and covalent bonding, to further improve the biocompatibility of the film. Attenuated total reflectance (ATR) FT-IR spectroscopy and X-ray photoclectron spectroscopy (XPS) were used to characterize the chemical composition of the surface modified films. The biocompatibility of the various surface modified PET films was evaluated using plasma recalcification time (PRT) and platelet adhesion. (C) 2004 Elsevier Ltd. All rights reserved.

L37 ANSWER 4 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-700685 [67] WPIDS
DOC. NO. CPI: C2003-193298
TITLE: Intercellular communication enhancer used for preventing and treating hypertension, comprises sulfuric acid group containing glycosaminoglycan having basic repeating units of glucosamine residue and hexuronic acid residue.
DERWENT CLASS: B03 B04
PATENT ASSIGNEE(S): (KOKU-N) KOKURITSU IYAKUHIN SHOKUHIN EISEI KENKYU; (SEGK) SEIKAGAKU KOGYO CO LTD; (TSUC-I) TSUCHIYA T
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2003113090	A	20030418	(200367)*		7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2003113090	A	JP 2001-311484	20011009

PRIORITY APPLN. INFO: JP 2001-311484 20011009
AN 2003-700685 [67] WPIDS
AB JP2003113090 A UPAB: 20031017
NOVELTY - Intercellular communication enhancer comprises glycosaminoglycan (GAG) with sulfuric acid group. GAG has a basic repeating structure of disaccharide comprising glucosamine residue and hexuronic acid residue, where the 2-**hydroxyl** group of hexuronic acid residue in GAG is not esterified with sulfuric acid and the 2-amino group of glucosamine residue in GAG is not sulfaminated.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a connection expression enhancer which comprises GAG with sulfuric acid group.

ACTIVITY - Hypotensive; Cytostatic; Antithyroid; Immunosuppressive; Dermatological.

MECHANISM OF ACTION - Intercellular communication enhancer; Connection expression enhancer.

In a test, 30 mu g/ml test agent containing 2-position desulfurized **oxidized heparin** and fibroblast growth factor (FGF) was cultivated in a culture medium. A control was performed without FGF. The cultivated cells were subjected to continuous culture for 1 day, washed with phosphoric acid buffer (PBS) or physiological sodium chloride solution, treated with 1 ml of 0.1% fluorescent pigment, cultivated for 5 minutes and washed with PBS. The fluorescent intensity of the test and control were analyzed using analysis software NIH image. The results showed that the test group showed an improvement in gap junction (140%).

USE - Used for preventing and treating erythrokeratoderma, chronic hypertension, left ventricular hypertrophy, tumor and autoimmune thyroiditis.

ADVANTAGE - The enhancer improves the gap junction and intercellular communication. The enhancer is highly safe with respect to living organisms. The enhancer improves and /promotes in vivo regeneration of osteocytes and chondrocytes, so that addition of enhancer in culture medium during culture produces firmer bone and cartilaginous tissue.

Dwg.0/3

L37 ANSWER 5 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-113346 [15] WPIDS
DOC. NO. NON-CPI: N2002-084433
DOC. NO. CPI: C2002-034756
TITLE: Surface-modified, medical metallic material comprises sequentially a base metal, a gold or silver thin layer and a functional sulfur compound to which a biologically active material is chemically bonded.
DERWENT CLASS: A96 B01 B04 E19 P32 P34

INVENTOR(S): KIM, S H; KIM, Y H; KOO, H C; LEE, W G; PARK, G D; GOO, H C; LEE, W K; PARK, K D

PATENT ASSIGNEE(S): (KOAD) KOREA ADV INST SCI & TECHNOLOGY; (GOOH-I) GOO H C; (KIMS-I) KIM S H; (KIMY-I) KIM Y H; (LEEW-I) LEE W K; (PARK-I) PARK K D

COUNTRY COUNT: 3

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2001037144	A1	20011101	(200215)*		10
JP 2001309972	A	20011106	(200215)		11
KR 2001094481	A	20011101	(200223)		
KR 356643	B	20021018	(200326)		
US 6617027	B2	20030909	(200361)		
JP 3485264	B2	20040113	(200410)		11

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2001037144	A1	US 2001-816446	20010326
JP 2001309972	A	JP 2001-103196	20010402
KR 2001094481	A	KR 2000-16775	20000331
KR 356643	B	KR 2000-16775	20000331
US 6617027	B2	US 2001-816446	20010326
JP 3485264	B2	JP 2001-103196	20010402

FILING DETAILS:

PATENT NO	KIND		PATENT NO
KR 356643	B	Previous Publ.	KR 2001094481
JP 3485264	B2	Previous Publ.	JP 2001309972

PRIORITY APPLN. INFO: KR 2000-16775 20000331

AN 2002-113346 [15] WPIDS

AB US2001037144 A UPAB: 20020306

NOVELTY - A surface-modified, medical metallic material (A), comprises a base metal, a gold or silver thin layer coated on the base metal, a functional sulfur compound adsorbed onto the thin layer and a biologically active material bonded chemically to the functional sulfur compound.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the preparation of (A), comprises:

(i) coating the thin layer onto the base metal;

(ii) adsorbing a polyfunctional sulfur compound onto the thin layer; and

(iii) chemically bonding the biologically active material to the functional group of the sulfur compound.

USE - In stents, artificial cardiac valves and catheters (claimed) which are used in the circulatory systems.

ADVANTAGE - The metallic materials are significantly improved in antithrombogenicity and biocompatibility.

Dwg.0/0

L37 ANSWER 6 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-049725 [06] WPIDS

DOC. NO. NON-CPI: N2001-038150

DOC. NO. CPI: C2001-013601
TITLE: Lubricious coating useful for insertable and implantable medical devices, e.g. stents, balloon catheters and guide wires, comprises a lubricious hydrophilic coating composition containing an antiblock agent.
DERWENT CLASS: A18 A28 A96 B07 D22 E19 G02 P34
INVENTOR(S): NAZAROVA, I; WANG, L
PATENT ASSIGNEE(S): (BOST-N) BOSTON SCI LTD; (NAZA-I) NAZAROVA I; (WANG-I) WANG L; (SCIM-N) SCIMED LIFE SYSTEMS INC
COUNTRY COUNT: 22
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000067816	A1	20001116	(200106)*	EN	21
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: CA JP					
US 2002016574	A1	20020207	(200213)		
EP 1176996	A1	20020206	(200218)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
JP 2002543885	W	20021224	(200313)		25
US 6673053	B2	20040106	(200411)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000067816	A1	WO 2000-US3329	20000209
US 2002016574	A1	US 1999-307309	19990507
EP 1176996	A1	EP 2000-907226	20000209
		WO 2000-US3329	20000209
JP 2002543885	W	JP 2000-616841	20000209
		WO 2000-US3329	20000209
US 6673053	B2	US 1999-307309	19990507

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 1176996	A1	Based on	WO 2000067816
JP 2002543885	W	Based on	WO 2000067816

PRIORITY APPLN. INFO: US 1999-307309 19990507
AN 2001-049725 [06] WPIDS
AB WO 200067816 A UPAB: 20010126
NOVELTY - A medical device for insertion into the body has at least one first surface which comes into periodic contact with a second surface, and the first surface bears a lubricious hydrophilic coating which comprises at least one antiblock agent.

USE - To aid insertion of insertable or implantable medical devices, e.g. devices which deliver a stent, stent-graft, graft or vena cava filler, and balloon catheters and other expandable medical devices, or for drug delivery devices (guide wires and dilatation balloons claimed).

ADVANTAGE - Adding the surface-migrating antiblocking agent to a hydrophilic biocompatible coating prevents sticking of the device to another surface. It also prevents the hydrophilic coating from absorbing moisture prematurely (claimed) and becoming tacky.

Dwg.0/5

L37 ANSWER 7 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-069754 [08] WPIDS
DOC. NO. NON-CPI: N2001-052713
DOC. NO. CPI: C2001-019287
TITLE: Immobilization of biomolecules on the surface of medical devices comprises contacting the surface with a reaction mixture comprising the biomolecule, oxidizing metal ions and an ethylenically unsaturated monomer.
DERWENT CLASS: A96 B07 D16 D22 P34
INVENTOR(S): CAHALAN, L; CAHALAN, P; KOULIK, E; VERHOEVEN, M
PATENT ASSIGNEE(S): (MEDT) MEDTRONIC INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6143354	A	20001107	(200108)*		8

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6143354	A	US 1999-245840	19990208

PRIORITY APPLN. INFO: US 1999-245840 19990208
AN 2001-069754 [08] WPIDS
AB US 6143354 A UPAB: 20010207
NOVELTY - Method (A) for making a medical device having a biomolecule immobilized on the surface of a solid polymeric substrate containing less than 10% water comprising contacting the surface with a reaction mixture comprising a biomolecule, a source of oxidizing metal ions and an ethylenically unsaturated monomer, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method (B) for modifying the surface characteristics of a solid polymeric substrate containing less than 10% water, comprising contacting the surface of the solid polymeric material with a reaction mixture comprising a biomolecule, oxidizing metal ions and an ethylenically unsaturated monomer under conditions effective to immobilize the biomolecule on the substrate surface in a one-step process;

(2) a method for modifying the surface characteristics of a metal surface coated with a vinylsilane, comprising contacting the surface with a reaction mixture comprising a biomolecule, oxidizing metal ions,and an ethylenically unsaturated monomer under conditions effective to immobilize the biomolecule on the surface in a one-step process;

(3) a method for delivering a biologically active agent, comprising contacting the surface of a solid polymeric material containing less than 10% water with a reaction mixture comprising the biologically active agent, oxidizing metal ions and an ethylenically unsaturated monomer under conditions effective to immobilize the biologically active agent on the surface in a one-step reaction process, and contacting the product with a physiological solution under conditions effective to release the biologically active agent;

(4) a modified polymeric material prepared by method (B); and
(5) a medical device prepared by method (A).
USE - The method is useful for making medical devices, e.g. blood oxygenators, blood pumps, blood sensors, tubing, vascular grafts, stents, pacemaker leads, heart valves, catheters and guide wires, with biocompatible surfaces.
Dwg.0/0

L37 ANSWER 8 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1991-120502 [17] WPIDS
DOC. NO. CPI: C1991-051789
TITLE: Stabilising enzyme especially glycerol kinase - by binding glycerol kinase to water soluble polysaccharide by covalent bond.
DERWENT CLASS: A96 B04 D16
PATENT ASSIGNEE(S): (WAKP) WAKO PURE CHEM IND LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 03058783	A	19910313	(199117)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 03058783	A	JP 1989-194873	19890727

PRIORITY APPLN. INFO: JP 1989-194873 19890727
AN 1991-120502 [17] WPIDS
AB JP 03058783 A UPAB: 19930928
The method is characterised by binding glycerolkinase to water soluble polysaccharide through covalent bond. The water soluble polysaccharide has at least one pair of adjacent **hydroxyl** gps. in its structuring units, that can be used and it is previously **oxidised** to form the aldehyde group which can react with the amino group in enzyme. Examples are dextran, dextran sulphate, dextrin, pullulan, soluble starch, **chondroitin sulphate**, laminan, lichenan, methylcellulose, etc. of mol. weight 1000-800000, can be used favourably. The binding is practiced in the buffer solution of pH 5-10 at 15-40 deg.C using water soluble polysaccharide and GKase using them with the weight proportion of 1-30:1.
USE/ADVANTAGE - Glycerol kinase (GKase) in aqueous solution can be stabilised and GKase can keep its activity for long time in aqueous solution Using stabilised GKase, glycerin and/or glycerin derivative can be determined efficiently. The method can be adapted in diagnosing chemistry, biochemistry, food chemistry, food industry, etc. widely.
0/0

L37 ANSWER 9 OF 14 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 90089520 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2557097
TITLE: Glycosaminoglycan conformations and changes on periodate oxidation.
AUTHOR: Ueno N; Chakrabarti B
CONTRACT NUMBER: 5R01 EY05301 (NEI)
SOURCE: Biopolymers, (1989 Nov) 28 (11) 1891-902.

Searcher : Shears 571-272-2528

Journal code: 0372525. ISSN: 0006-3525.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199001
ENTRY DATE: Entered STN: 19900328
Last Updated on STN: 19970203
Entered Medline: 19900129

AB The progressive periodate oxidation of glycosaminoglycans (GAG), including hyaluronate (HA), chondroitins (CH) (chondroitin, chondroitin 4- and 6-sulfate), **dermatan sulfate** (DS), and keratan sulfate (KS), were monitored by CD and high performance liquid chromatography (HPLC) using a size-exclusion column. The rate of oxidation also was measured and calculated using first- and second-order kinetics, and the data appear to fit better with first-order kinetics. In both HA and CH, the n - pi amide band at 208 nm decreases in intensity upon oxidation, but in HA it becomes positive after 16 h of periodate treatment. In CH, the band disappears, and the pi - pi amide band below 200 nm becomes optically active. Concomitantly, a second negative band near 290 nm appears for these two **oxidized** GAG. Oxidation causes a slight change in the CD of DS. It ordinarily displays a very weak n - pi band at 210 nm, but instead shows an intense pi - pi amide band near 190 nm. CD of KS remains unaffected by periodate. Kinetic studies, however, show a higher oxidation rate for DS than HA and CH. With the exception of KS, all other **oxidized** polymers shown an apparent decrease in molecular weight (higher peak retention time) in HPLC analysis. Both CD and HPLC results have been attributed to a major conformational change of HA and CH, and a minor one for DS. The ease and extent of periodate oxidation as well as the changes in molecular properties following periodate treatment are critically dependent on the configuration of the individual GAG rather than the oxidation rate. There is a distinct difference in the conformational change between HA and CH, as manifested by their dichroic behavior, that was attributed to the equatorial disposition of C-4 **hydroxyl** group in HA and axial disposition CH.

L37 ANSWER 10 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1986-009992 [02] WPIDS
DOC. NO. NON-CPI: N1986-007267
DOC. NO. CPI: C1986-004151
TITLE: Determn. of lipase activity - using water soluble fatty acid ester of sugar as reaction substrate.
DERWENT CLASS: B04 D16 J04 S03
PATENT ASSIGNEE(S): (FJRE) FUJI REBIO KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 60233560	A	19851120	(198602)*		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 60233560	A	JP 1984-88589	19840502

PRIORITY APPLN. INFO: JP 1984-88589 19840502
AN 1986-009992 [02] WPIDS
AB JP 60233560 A UPAB: 19930922
Method comprises using a water-soluble cpd., formed by ester-bonding fatty acid with **hydroxyl** gp. of sugars (including amino sugar, acetylamino sugar or sulfur-containing sugar) as the reaction substrate of lipase.

Sugars used are pref. those of less than 100,000, especially 350-2000, in mol.weight, such as sucrose, xylose, oligomaltoside, chitin, chitosan, **heparin**, dextran, starch, etc. Fatty acid used is pref. 5-22C ones such as lauric, palmitic, stearic, behenic, oleic, linoleic, coconut oil fatty acid, etc. Sugar fatty acid ester is e.g. 6-O-palmitoyl-glucose, 6,6'-dioleyl-sucrose, O-tris-stearyl maltoheptaose, etc. For the determn. of the activity of lipase, the reaction substrate is treated with a sample lipase to decompose it into sugar and fatty acid, and a change of the system is determined. The amount of sugar or fatty acid formed is conveniently determined colorimetrically. For maltose treated with maltase, glucose formed is **oxidised** by glucose oxidase, and hydrogen peroxide formed is colorimetrically determined by 4-aminoantipyrine-phenol peroxidase method. For fatty acid treated successively with acyl-CoA synthetase, CoA oxidase and peroxidase, and the amount of red quinoneimine formed is colorimetrically determined.

ADVANTAGES - The activity of lipase can be easily and accurately determined colorimetrically. The method is applicable to any kind of lipase, i.e. from body fluid such as pancreatic juice, gastric juice, blood serum, urine, etc. of human or various animals, lipase from seeds of castor bean, rapeseed, etc. or lipase from various microorganisms such as yeast, bacteria, etc.
0/0

L37 ANSWER 11 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:125757 BIOSIS
DOCUMENT NUMBER: PREV198681036173; BA81:36173
TITLE: SYNTHESIS OF A PENTASACCHARIDE CORRESPONDING TO THE ANTITHROMBIN III BINDING FRAGMENT OF HEPARIN.
AUTHOR(S): VAN BOECKEL C A A [Reprint author]; BEETZ T; VOS J N; DE JONG A J M; VAN AELST S F; VAN DEN BOSH R H; MERTENS J M R; VAN DER VLUGT F A
CORPORATE SOURCE: ORGANON SCIENTIFIC DEVELOPMENT GROUP, PO BOX 20, 5340 BH OSS, NETHERLANDS
SOURCE: Journal of Carbohydrate Chemistry, (1985) Vol. 4, No. 3, pp. 293-322.
CODEN: JCACDM. ISSN: 0732-8303.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986
AB The synthesis of a protected pentasaccharide 27b corresponding to the antithrombin III binding region of **heparin** is presented. This pentasaccharide was prepared from two disaccharides (12c and 23) and a monosaccharide (1). The glucuronic acid containing disaccharide 12c was prepared from easily available monomers 6 and 7. Oxidation to the uronic acid was performed in the disaccharide stage. L-Idose derivative 16, prepared via a new route, was coupled with 1,6-anhydro derivative 17, **oxidized** and transformed into disaccharide

23. Coupling of 12c and 23 to tetrasaccharide 24a has been investigated. Better yields were obtained without collidine, the reason for which is explained. Coupling of 24b and 1 afforded the pentasaccharide 27b, protected with acetyl at the positions to be sulphated, benzyl at the other **hydroxyl** functions and azide at the 2-position of the glucosamine residues. Conversion of 27b into the sulphated pentasaccharide Ib can be performed according to published procedures.

L37 ANSWER 12 OF 14 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 85116203 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6523442
TITLE: Catalytic and regulatory functions of N-bromosuccinimide-modified bovine thrombin.
AUTHOR: Pal P K; Starr T; Gertler M M
SOURCE: Thrombosis research, (1984 Nov 15) 36 (4) 293-303. Journal code: 0326377. ISSN: 0049-3848.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198503
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19980206
Entered Medline: 19850308

AB At pH 4.1, bovine thrombin reacts rapidly with N-bromo-succinimide to yield modified enzyme containing **oxidized** tryptophan residue. Both fibrinogen clotting activity and esterase activity are reduced considerably when three moles of tryptophan residues per mole of thrombin are **oxidized**, but the Michaelis constants for synthetic substrates are not appreciably altered. Reaction of NBS also results in a decrease in the affinity of thrombin for **heparin**. The dissociation constant for **heparin** -thrombin complex is increased by 2.6-fold due to the modification of one tryptophan residue. However, the magnitude of the increase in the dissociation constant remains the same for modified enzymes containing approximately two or three **oxidized** tryptophan residues. The rate constant for the inactivation of thrombin by antithrombin III is increased by 2.5-fold due to the modification of a single tryptophan residue. This increase in rate constant is not further amplified when more than one tryptophan residue is **oxidized**. In contrast, in the presence of **heparin** the rate of inactivation of modified and unmodified thrombins by antithrombin III are not significantly different. Thus, the **heparin** -sensitized inactivation of thrombin by antithrombin III is affected by the modification of one tryptophan residue. Spectrophotometric titrations of the phenolic **hydroxyl** groups suggest that the structural environments of tyrosyl groups for both unmodified and modified thrombin containing one **oxidized** tryptophan residue, are similar. The temperature for half loss of catalytic activity of control and NBS-modified thrombin, containing one **oxidized** tryptophan, are 52 and 51.5 degrees C respectively. It appears that the one tryptophan residue of thrombin is situated at or close to the binding site of **heparin**.

L37 ANSWER 13 OF 14 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1977:117937 BIOSIS
DOCUMENT NUMBER: PREV197763012801; BA63:12801

TITLE: VISCOSITY AT LOW SHEAR AND CIRCULAR DICHROISM STUDIES OF HEPARIN.
AUTHOR(S): CHUNG M C M; ELLERTON N F
SOURCE: Biopolymers, (1976) Vol. 15, No. 7, pp. 1409-1423. CODEN: BIPMAA. ISSN: 0006-3525.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

AB The viscosity of **heparin** solution was investigated under conditions of low shear stress between 0.0193 and 0.222 dyne cm-2, in water, in the presence of various cations (Na+, K+, Cs+, Mg2+, Ba2+, Cu2+) and at several pH's. The viscosity decreased with increasing shear stress. Shear dependence was greatest in the absence of added salts, and decreased as the ionic strength increased. Differences in viscosity in the presence of various cations appear to be related to the binding affinity of these cations to **heparin**. Viscosity studies of the periodate oxidation of **heparin** confirmed that **heparin** contains vicinal **hydroxyl** groups in its primary structure. Circular dichroism spectra of the same **heparin** solutions were also studied. The binding process between Cu2+ and **heparin** appears to be different from that of other divalent ions. A reduction in the pitch of the helix would qualitatively explain the conformational changes that occur on binding Cu2+ to **heparin**. These changes are reversible on removal of Cu2+ and replacement with Na+. The circular dichroism spectrum was virtually lost for periodate-**oxidized heparin**.

L37 ANSWER 14 OF 14 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1971-43093S [25] WPIDS
TITLE: 2-amino-2-deoxy-amlose and inters.
DERWENT CLASS: B04
PATENT ASSIGNEE(S): (OHIS) UNIV OHIO STATE
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 3585184	A		(197125)*		

PRIORITY APPLN. INFO: US 1967-694382 19671229
AN 1971-43093S [25] WPIDS
AB US 3585184 A UPAB: 20031203
(1 right arrow 4)-(2-Amino-2-deoxy-alpha-D-glucopyrano-(1 right arrow 4)-(alpha-D-glucopyranan), also known as 2-amino-2-deoxy-amylose, is a new cpd. produced from amylose by tritylation to give 6-O-tritylamylose, oxidation of this with DMSO and acetic anhydride to give the new 2-ketone (every second unit **oxidised**), conversion of this to the new oxime, LiAlH4 reduction of this to the new tritylated amine and detritylation of this. The amines can be converted to salts, and to **heparin** via a series of new intermediates which are tritylated, blocked amino cpds., the secondary **hydroxyl**-protected derivs. of these, their de-tritylated analogues and the acid oxidation products of these (i.e. in every unit not containing the blocked NH2 group, CH2OH is **oxidised** to CO2H), which last named are deblocked at the amino and secondary **hydroxyl** groups and then, as the sodium salts, converted by controlled sulphation to **heparin** (sodium salt).

2-Amino-2-deoxy-amylose also has use (1) in the sulphated form as a hypolipemic agent; (2) as a non-laxative antacid; (3) as a diazo component to give polymer dyes; (4) as a froth-flotation agent in separation of minerals; (5) for sizing fabrics, as a water-soluble carrier for pigments and dyes in textile printing, and a cationic protective colloid to impart shrink-resistance to wool, and (6) to give, when compounded with rubber or PVC, microporous fibres for battery separators and first-aid dressings.

(FILE 'CAPLUS' ENTERED AT 16:59:54 ON 12 JUL 2005)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON HEPARIN/CN
L2 46156 SEA FILE=CAPLUS ABB=ON PLU=ON L1 OR HEPARIN##
L11 2 SEA FILE=REGISTRY ABB=ON PLU=ON "CHONDROITIN SULFATE"/CN OR "CHONDROITIN SULFATE A"/CN
L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DERMATAN SULFATE"/CN
L13 1 SEA FILE=REGISTRY ABB=ON PLU=ON "HEPARAN SULPHATE"/CN
L14 4 SEA FILE=REGISTRY ABB=ON PLU=ON L11 OR L12 OR L13
L15 60474 SEA FILE=CAPLUS ABB=ON PLU=ON L2 OR L14 OR (CHONDROITIN OR DERMATAN OR HEPARAN)(W)(SULFATE OR SULPHATE)
L29 364 SEA FILE=CAPLUS ABB=ON PLU=ON (L15 OR LMWF OR HMWF)(L)(OXIDIS? OR OXIDIZ?)
L38 8 SEA FILE=CAPLUS ABB=ON PLU=ON L29(L)HYDROXYL

L39 8 S L38 NOT L8

L39 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 25 Nov 2004
ACCESSION NUMBER: 2004:1013472 CAPLUS
DOCUMENT NUMBER: 142:162417
TITLE: Poly(vinyl alcohol) hydrogel fixation on poly(ethylene terephthalate) surface for biomedical application
AUTHOR(S): Li, Yali; Neoh, K. G.; Kang, E. T.
CORPORATE SOURCE: Department of Chemical and Biomolecular Engineering, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Polymer (2004), 45(26), 8779-8789
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A surface modification technique was developed for the covalent immobilization of poly(vinyl alc.) (PVA) hydrogel onto poly(ethylene terephthalate) (PET) to improve the biocompatibility of the film. The PET film was first graft copolymd. with poly(ethylene glycol) monomethacrylate (PEGMA) in the presence of ethylene glycol dimethacrylate (EGDMA) as crosslinker, and then **oxidized** with a mixture of acetic anhydride (Ac2O) and DMSO to produce aldehyde groups on the PET surface. Finally, the prepared PVA solution was cast onto the film and covalently immobilized on the film through the reaction between the aldehyde groups on the PET film and the **hydroxyl** groups of PVA. The good attachment of the PVA layer to the PET film was confirmed by observing the cross-section of the PET-PVA film using SEM. **Heparin** was immobilized on the PVA layered PET using two different methods, phys. entrapment and covalent bonding, to further improve the biocompatibility of the film. Attenuated total reflectance (ATR) FT-IR spectroscopy and XPS were used to characterize the chemical composition of the surface modified films. The biocompatibility of the various surface modified PET films was

evaluated using plasma recalcification time (PRT) and platelet adhesion.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Apr 2002
ACCESSION NUMBER: 2002:277561 CAPLUS
DOCUMENT NUMBER: 137:273134
TITLE: Complex liposomes as model systems for studying lipid peroxidation processes and for the assessment of the antioxidant activity of natural products against free radical injury
AUTHOR(S): Mora, Margarita; Gutierrez, M. Elena; Sagrista, M. Luisa; Africa de Madariaga, M.; Casado, Francisco J.
CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, Faculty of Chemistry, University of Barcelona, Barcelona, E-08028, Spain
SOURCE: Recent Research Developments in Lipids (2000), 4(Pt. 2), 213-243
CODEN: RRDLBH
PUBLISHER: Transworld Research Network
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The toxic implications of lipid peroxidn. for aerobic life have determined an intensive research into the mechanism of lipid peroxidn. during recent years. Exptl. evidence demonstrates that the protective action against oxygen or oxygen radical toxicity can be achieved not only by endogenous compds. but also by exogenously supplied ones and, thus, an antioxidant therapy has been successfully assayed in the treatment of many disease states. Due to the toxic implications of lipid peroxidn. for aerobic life, research into the mechanisms of lipid peroxidn. has been quite intense during recent years. This paper focuses on the use of complex liposomes, as the most appropriate model for real biol. membranes, to evaluate the potential benefits of several antioxidants in relation to lipid peroxidn. The xanthine/xanthine oxidase, the Fe2+/H2O2 and the Cu2+/H2O2 systems have been used to generate **hydroxyl** radicals, one of the most **oxidizing** species, by means the Haber-Weiss or the Fenton reactions. As an alternative to the iron-induced lipid peroxidn., the water soluble azo-compound 2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH) was used. The antioxidant behavior of plant extract flavonoids, α-tocopherols and some glycosaminoglycans has been analyzed. This paper also proposes a systematic study for the evaluation of the behavior mechanisms of antioxidant compds. against oxygen toxicity. The colorimetric thiobarbituric acid reaction (TBARS), the use of fluorescent bilayer probes, such as DPH and DPH-PA, and the measurements of the oxygen consumption by a Clark electrode have been used to quantify the extent of the oxidative damage and the antioxidant capability of the natural products in study. Visible and ESR spectroscopies were used to identify the radical species generated during oxidative attack and the scavenging capability of the antioxidants studied. The whole of the information derived from all these studies will give the basis to establish the mechanisms of antioxidant action. The order of efficiency in avoiding radical chain reactions was vitamin E > rosemary > vitamin E-acetate > silymarin > citrus > **chondroitin sulfate** > hyaluronic acid.

The ability of **chondroitin sulfate** to scavenge the superoxide anion radical and the capacity of the flavonoid-containing exts. to act as scavengers for **hydroxyl** and AAPH-derived radicals has been demonstrated.

REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Jun 2001
ACCESSION NUMBER: 2001:416801 CAPLUS
DOCUMENT NUMBER: 135:24735
TITLE: Electropolymerizable monomers and polymeric coatings on implantable devices
INVENTOR(S): Domb, Abraham J.
PATENT ASSIGNEE(S): Efrat Biopolymers Ltd., Israel
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001039813	A1	20010607	WO 2000-IL807	20001130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1233795	A1	20020828	EP 2000-979913	20001130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003099684	A1	20030529	US 2002-148665	20020603
PRIORITY APPLN. INFO.:			US 1999-168626P	P 19991203
			WO 2000-IL807	W 20001130

AB The invention provides an electropolymerizable monomer comprising a chemical bound active agent for coating of implantable devices, e.g., stents. The monomer is a derivative of pyrrole, thiophene, carbazole, indole, tyramine, tyrosine, aniline, naphthalene, anthracene, and quinoline. The active agent, such as **heparin**, a heparinoid, an oligonucleotide, DNA, plasmid, an antithrombotic, anti-inflammatory, or antiproliferative agent, is capable of affecting animal tissue and is released in a controlled manner over a period of 12 h to several months. It is selected from free or conjugated mols. or mols. encapsulated in a controlled delivery system, such as polymer microparticles. A polymeric coating on implantable devices with metallic surfaces is prepared by electropolymn. of **oxidizable** monomers. The coating is capable of protecting the device and the patient from thrombosis and unwanted tissue reactions. For example, nanoparticles having pyrrole derivs. bound to the surface and available for electropolymn. were prepared by polymerization of

N-pyrrole-PEG2000-OH (prepared from the reaction of bromo-PEG2000-**hydroxyl**) with lactide using stannous octoate as catalyst. The block copolymer was then mixed with polylactide and PEG-poly(lactic acid) in a CHCl3 solution The CHCl3 solution was added dropwise to a stirring buffer solution (0.01M phosphate pH 7.4) to form nanoparticles with PEG-pyrrole on the surface available for electropolymn. and deposition at the stent wire.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Mar 2000
ACCESSION NUMBER: 2000:175704 CAPLUS
DOCUMENT NUMBER: 132:212679
TITLE: New process for preparing surface modification substances
INVENTOR(S): Scholander, Elisabeth
PATENT ASSIGNEE(S): Norsk Hydro Asa, Norway
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000013718	A1	20000316	WO 1999-NO277	19990908
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
NO 9804143	A	20000310	NO 1998-4143	19980909
CA 2342991	AA	20000316	CA 1999-2342991	19990908
AU 9957652	A1	20000327	AU 1999-57652	19990908
AU 757913	B2	20030313		
BR 9913516	A	20010605	BR 1999-13516	19990908
EP 1112097	A1	20010704	EP 1999-944936	19990908
EP 1112097	B1	20030625		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003507082	T2	20030225	JP 2000-568523	19990908
AT 243538	E	20030715	AT 1999-944936	19990908
PT 1112097	T	20031128	PT 1999-944936	19990908
ES 2203177	T3	20040401	ES 1999-944936	19990908
US 6461665	B1	20021008	US 2001-763873	20010228
NO 2001001182	A	20010308	NO 2001-1182	20010308
PRIORITY APPLN. INFO.:			NO 1998-4143 A	19980909
			WO 1999-NO277 W	19990908

AB The present invention relates to a process for preparing surface modifications having an improved antithrombogenic activity, whereby

the improvement is achieved by treating **heparin** at elevated temperature or at elevated pH or in contact with nucleophilic catalysts such as amines, alcs., thiols or immobilized amino, **hydroxyl** or thiol groups before attaching said **heparin** to the surface to be modified. Treatment of nitrous acid-**oxidized heparin** in an alkaline environment at pH 10 leads to a highly enhanced **heparin** activity after immobilization on a surface, as compared to nitrous acid-**oxidized heparin** treated at pH 7.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 May 1997
ACCESSION NUMBER: 1997:318225 CAPLUS
DOCUMENT NUMBER: 126:293573
TITLE: Preparation of sulfated oligosaccharide acid diamides as anticoagulants
INVENTOR(S): Toce, Joseph A.
PATENT ASSIGNEE(S): Reliable Biopharmaceutical Corporation, USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9712893	A1	19970410	WO 1996-US11639	19960712
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5714598	A	19980203	US 1995-538628	19951004
PRIORITY APPLN. INFO.:			US 1995-538628 A	19951004
			US 1993-40112 A1	19930330

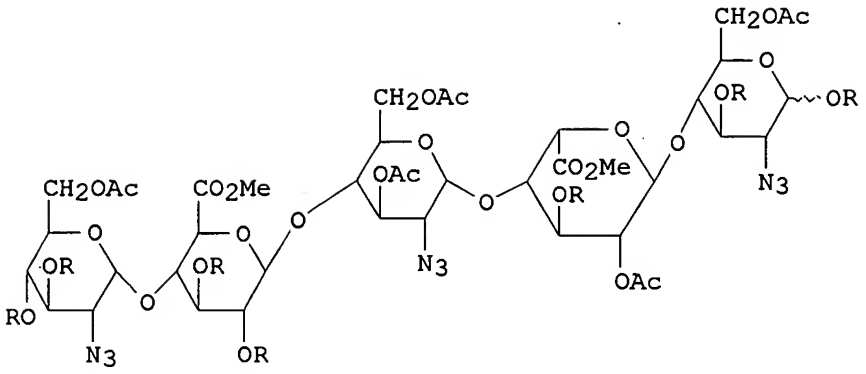
OTHER SOURCE(S): MARPAT 126:293573
AB Sulfated acid amides having **heparin**-like properties of the formula (R1)-NH-R-NH-(R1) [R1 = saccharide acid selected from cellobiose, cellotriose, cellotetrose, maltose, maltotriose and maltotetrose or mixts. thereof; R = C3-10 alkylene, optionally substituted with one or more **hydroxyls**], suitable for oral administration, were prepared as anticoagulants. Thus, maltose was **oxidized** to maltobionic acid, which was reacted with H2NCH2CH(OH)CH2NH2 to form the diamide, and sulfated (degree of sulfation 55%). In clotting time tests, this compound had >180 aPTT(s) at 10μg.

L39 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 Mar 1990
ACCESSION NUMBER: 1990:99067 CAPLUS
DOCUMENT NUMBER: 112:99067
TITLE: Glycosaminoglycan conformations and changes on periodate oxidation
AUTHOR(S): Ueno, Norio; Chakrabarti, Bireswar
CORPORATE SOURCE: Eye Res. Inst., Boston, MA, USA

SOURCE: Biopolymers (1989), 28(11), 1891-902
CODEN: BIPMAA; ISSN: 0006-3525
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The progressive periodate oxidation of glycosaminoglycans (GAG), including hyaluronate (HA), chondroitins (CH) (chondroitin, chondroitin 4- and 6-sulfate), **dermatan sulfate** (DS), and keratan sulfate (KS), were monitored by CD and high performance liquid chromatog. (HPLC) using a size-exclusion column. The rate of oxidation also was measured and calculated using first- and second-order kinetics, and the data appear to fit better with first-order kinetics. In both HA and CH, the n-π^* amide band at 208 nm decreases in intensity upon oxidation, but in HA it becomes pos. after 16 h of periodate treatment. In CH, the band disappears, and the π-π^* amide band below 200 nm becomes optically active. Concomitantly, a second neg. band near 290 nm appears for these two **oxidized** GAG. Oxidation causes a slight change in the CD of DS. It ordinarily displays a very weak n-π^* band at 210 nm, but instead shows an intense π-π^* amide band near 190 nm. CD of KS remains unaffected by periodate. Kinetic studies, however, show a higher oxidation rate for DS than HA and CH. With the exception of KS, all other **oxidized** polymers show an apparent decrease in mol. weight (higher peak retention time) in HPLC anal. Both CD and HPLC results have been attributed to a major conformational change of HA and CH, and a minor one for DS. The ease and extent of periodate oxidation as well as the changes in mol. properties following periodate treatment are critically dependent on the configuration of the individual GAG rather than the oxidation rate. There is a distinct difference in the conformational change between HA and CH, as manifested by their dichroic behavior, that was attributed to the equatorial disposition of C-4 **hydroxyl** group in HA and axial disposition CH.

L39 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 03 Oct 1986
ACCESSION NUMBER: 1986:515332 CAPLUS
DOCUMENT NUMBER: 105:115332
TITLE: Synthesis of a pentasaccharide corresponding to the antithrombin III binding fragment of heparin
AUTHOR(S): Van Boeckel, C. A. A.; Beetz, T.; Vos, J. N.; De Jong, A. J. M.; Van Aelst, S. F.; Van den Bosch, R. H.; Mertens, J. M. R.; Van der Vlugt, F. A.
CORPORATE SOURCE: Org. Sci. Dev. Group, Oss, 5340 BH, Neth.
SOURCE: Journal of Carbohydrate Chemistry (1985), 4(3), 293-321
CODEN: JCACDM; ISSN: 0732-8303
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:115332
GI



I

AB The synthesis of protected pentasaccharide I corresponding to the antithrombin III binding region of **heparin** is presented. I was prepared from two disaccharides and a monosaccharide. The glucuronic acid-containing disaccharide was prepared from easily available monomers. Oxidation to the uronic acid was performed in the disaccharide stage. An L-idose derivative was coupled with a 1,6-anhydro monosaccharide, **oxidized**, and transformed into the second disaccharide. Coupling of the disaccharides was investigated. Further coupling of the tetrasaccharide afforded the pentasaccharide protected with acetyl at the positions to be sulfated, benzyl at the other **hydroxyl** functions, and azide at the 2-position of the glucosamine residues.

L39 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1968:416378 CAPLUS
DOCUMENT NUMBER: 69:16378
TITLE: Substrate specificity of D-galactose oxidase
AUTHOR(S): Schlegel, Robert A.; Gerbeck, Claire M.; Montgomery, Rex
CORPORATE SOURCE: Univ. of Iowa, Iowa City, IA, USA
SOURCE: Carbohydrate Research (1968), 7(2), 193-9
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The rate of oxidation of Me ethers of D-galactose and 2-amino-2-deoxy-D-galactose, and of oligosaccharides and polysaccharides containing D-galactosyl residues having a free **hydroxyl** group at C-6, was followed by various procedures that depend either upon the H2O2 or the aldehyde groups produced, or upon the unoxidized D-galactose residues remaining in the reaction mixture Derivs. of D-galactose having substituents on the **hydroxyl** group at C-4 are not **oxidized**. 2-Amino-2-deoxy-D-galactose residues having glycosyl substituents at C-3 are not **oxidized** by the enzyme, and therefore, neither are chondroitin 4-sulfate nor **dermatan sulfate**.

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     (FILE 'HOME' ENTERED AT 16:30:22 ON 12 JUL 2005)
               SET COST OFF

     FILE 'REGISTRY' ENTERED AT 16:30:33 ON 12 JUL 2005
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L1             1 SEA ABB=ON  PLU=ON  HEPARIN/CN
               D CN

     FILE 'CAPLUS' ENTERED AT 16:31:21 ON 12 JUL 2005
L2         46156 SEA ABB=ON  PLU=ON  L1 OR HEPARIN##
               D KWIC
L*** DEL       0 S L2 AND MOUSAIS ?/AU
L*** DEL      35 S L2 AND MOUSA ?/AU
L*** DEL       0 S L4 AND (OXIDIS? OR OXIDIZ?)
L3           410 SEA ABB=ON  PLU=ON  L2 AND (OXIDIS? OR OXIDIZ?)

     FILE 'REGISTRY' ENTERED AT 16:33:29 ON 12 JUL 2005
               E SULFATE/CN 5
L4             6 SEA ABB=ON  PLU=ON  (SULFATE/CN OR "SULFATE (37SO42-)"/CN
               OR "SULFATE (H(HSO4)21-)"/CN OR "SULFATE (HSO41-)"/CN OR
               "SULFATE (ION 2-)"/CN OR "SULFATE (S2O72-)"/CN OR "SULFATE
               (SO41-)"/CN)
               E CARBOXYLATE/CN 5
               E CARBOXYLATES/CN 5

     FILE 'CAPLUS' ENTERED AT 16:33:50 ON 12 JUL 2005
L*** DEL     206 S L3 AND (L4 OR SULFATE OR SULPHATE OR SO##)
               D KWIC
L*** DEL   14478 S SO3H
L*** DEL     235 S L6(S)SULFATE
               D KWIC
               D KWIC 2-3
L*** DEL      63 S L6(3A)SULFATE
               D KWIC
               D KWIC 2
               D KWIC 4
L5           132 SEA ABB=ON  PLU=ON  L3 AND (L4 OR SULFATE OR SULPHATE OR
               SO3H)
L6            16 SEA ABB=ON  PLU=ON  L5 AND ((MOL OR MOLECULAR)(W)(WT OR
               WEIGH?) OR MW OR M W)
               D KWIC
L*** DEL      35 S L2 AND MOUSA ?/AU
L*** DEL       0 S L7 AND (OXIDIS? OR OXIDIZ?)

     FILE 'WPIDS' ENTERED AT 16:36:32 ON 12 JUL 2005
L*** DEL       0 S L8

     FILE 'USPATFULL' ENTERED AT 16:36:48 ON 12 JUL 2005
L*** DEL       6 S L8
               D TI AU 1-6
               D 2 .BEVPAT

     FILE 'CAPLUS' ENTERED AT 16:38:04 ON 12 JUL 2005
L7            43 SEA ABB=ON  PLU=ON  L3 AND ((MOL OR MOLECULAR)(W)(WT OR
               WEIGH?) OR MW OR M W)
L8             4 SEA ABB=ON  PLU=ON  L7 AND (DA OR DALTON)
               D KWIC
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                D KWIC 4

     FILE 'REGISTRY' ENTERED AT 16:43:33 ON 12 JUL 2005

     FILE 'CAPLUS' ENTERED AT 16:43:43 ON 12 JUL 2005
                D QUE L8
                D L8 1-4 .BEVSTR

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
     JICST-EPLUS, JAPIO' ENTERED AT 16:44:08 ON 12 JUL 2005
L9            15 SEA ABB=ON  PLU=ON  L8
L10           15 DUP REM L9 (0 DUPLICATES REMOVED)
                D 1-15 IBIB ABS

     FILE 'REGISTRY' ENTERED AT 16:46:40 ON 12 JUL 2005
                E CHONDROITIN SULFATE/CN 5
L11            2 SEA ABB=ON  PLU=ON  "CHONDROITIN SULFATE"/CN OR "CHONDROITI
                N SULFATE A"/CN
                E DERMATAN SULFATE/CN 5
L12            1 SEA ABB=ON  PLU=ON  "DERMATAN SULFATE"/CN
                E HEPARAN SULFATE/CN 5
                E HEPARAN SULFATES/CN 5
L13            1 SEA ABB=ON  PLU=ON  "HEPARAN SULPHATE"/CN
L14            4 SEA ABB=ON  PLU=ON  L11 OR L12 OR L13

     FILE 'CAPLUS' ENTERED AT 16:48:23 ON 12 JUL 2005
L15        60474 SEA ABB=ON  PLU=ON  L2 OR L14 OR (CHONDROITIN OR DERMATAN
                OR HEPARAN)(W)(SULFATE OR SULPHATE)
L16          517 SEA ABB=ON  PLU=ON  L15 AND (OXIDIS? OR OXIDIZ?)
L17           47 SEA ABB=ON  PLU=ON  L16 AND ((MOL OR MOLECULAR)(W)(WT OR
                WEIGH?) OR MW OR M W)
L18            4 SEA ABB=ON  PLU=ON  L17 AND (DA OR DALTON)
                D QUE
L19            0 SEA ABB=ON  PLU=ON  L18 NOT L8

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
     JICST-EPLUS, JAPIO' ENTERED AT 16:49:56 ON 12 JUL 2005
L20           16 SEA ABB=ON  PLU=ON  L18
L21            1 SEA ABB=ON  PLU=ON  L20 NOT L9
                D IBIB ABS

     FILE 'CAPLUS' ENTERED AT 16:51:00 ON 12 JUL 2005
L*** DEL     713 S L15 AND (DA OR DALTON)
L*** DEL     445 S L22 AND ((MOL OR MOLECULAR)(W)(WT OR WEIGH?) OR MW OR M W
                D KWIC
L22          517 SEA ABB=ON  PLU=ON  (L15 OR LMWH OR HMWF) AND (OXIDIS? OR
                OXIDIZ?)
L23           47 SEA ABB=ON  PLU=ON  L22 AND ((MOL OR MOLECULAR)(W)(WT OR
                WEIGH?) OR MW OR M W)
L24            4 SEA ABB=ON  PLU=ON  L23 AND (DA OR DALTON)
                D QUE
L25            0 SEA ABB=ON  PLU=ON  L24 NOT L8

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
     JICST-EPLUS, JAPIO' ENTERED AT 16:53:51 ON 12 JUL 2005
L26           16 SEA ABB=ON  PLU=ON  L24
L27            0 SEA ABB=ON  PLU=ON  L26 NOT (L9 OR L21)

     FILE 'CAPLUS' ENTERED AT 16:54:59 ON 12 JUL 2005
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L28          25 SEA ABB=ON  PLU=ON  L22 AND HYDROXY#
                D KWIC
L29         364 SEA ABB=ON  PLU=ON  (L15 OR LMWF OR HMWF)(L)(OXIDIS? OR
                OXIDIZ?)
L30          12 SEA ABB=ON  PLU=ON  L29(L)HYDROXY#
                D KWIC
                D QUE
L31          12 SEA ABB=ON  PLU=ON  L30 NOT L8
                D 1-12 .BEVSTR

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
     JICST-EPLUS, JAPIO' ENTERED AT 16:56:51 ON 12 JUL 2005
L32          35 SEA ABB=ON  PLU=ON  L30
L33          34 SEA ABB=ON  PLU=ON  L32 NOT (L9 OR L21)
L34          27 DUP REM L33 (7 DUPLICATES REMOVED)
                D KWIC
L35          17 SEA ABB=ON  PLU=ON  L29(L) HYDROXYL
                D KWIC
                D QUE
L36          17 SEA ABB=ON  PLU=ON  L35 NOT (L9 OR L21)
L37          14 DUP REM L36 (3 DUPLICATES REMOVED)
                D 1-14 IBIB ABS

     FILE 'CAPLUS' ENTERED AT 16:59:54 ON 12 JUL 2005
L38           8 SEA ABB=ON  PLU=ON  L29(L)HYDROXYL
L39           8 SEA ABB=ON  PLU=ON  L38 NOT L8
                D QUE L38
                D L39 1-8 .BEVSTR

     FILE 'HOME' ENTERED AT 17:00:40 ON 12 JUL 2005


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   11 JUL 2005  HIGHEST RN 854584-06-8
     DICTIONARY FILE UPDATES:  11 JUL 2005  HIGHEST RN 854584-06-8

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

     ************************************************************
     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
     * effective March 20, 2005.  A new display format, IDERL, is now    *
     * available and contains the CA role and document type information. *
     *                                                          *
     ************************************************************

     Crossover limits have been increased.  See HELP CROSSOVER for details.
```

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

FILE CAPLUS

FILE COVERS 1907 - 12 Jul 2005 VOL 143 ISS 3
FILE LAST UPDATED: 11 Jul 2005 (20050711/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE WPIDS
FILE LAST UPDATED: 12 JUL 2005 <20050712/UP>
MOST RECENT DERWENT UPDATE: 200544 <200544/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://thomsonderwent.com/coverage/latestupdates/ <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT:
http://thomsonderwent.com/support/userguides/ <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX FIRST VIEW - FILE WPIFV.
FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501. PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code FOR DETAILS. <<<

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 12 Jul 2005 (20050712/PD)
FILE LAST UPDATED: 12 Jul 2005 (20050712/ED)
HIGHEST GRANTED PATENT NUMBER: US6918136
HIGHEST APPLICATION PUBLICATION NUMBER: US2005150027
CA INDEXING IS CURRENT THROUGH 12 Jul 2005 (20050712/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 12 Jul 2005 (20050712/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2005

>>> USPAT2 is now available. USPATFULL contains full text of the
>>> original, i.e., the earliest published granted patents or
>>> applications. USPAT2 contains full text of the latest US
>>> publications, starting in 2001, for the inventions covered in
>>> USPATFULL. A USPATFULL record contains not only the original
>>> published document but also a list of any subsequent
>>> publications. The publication number, patent kind code, and
>>> publication date for all the US publications for an invention
>>> are displayed in the PI (Patent Information) field of USPATFULL
>>> records and may be searched in standard search fields, e.g., /PN,
>>> /PK, etc.

>>> USPATFULL and USPAT2 can be accessed and searched together
>>> through the new cluster USPATALL. Type FILE USPATALL to
>>> enter this cluster.
>>>
>>> Use USPATALL when searching terms such as patent assignees,
>>> classifications, or claims, that may potentially change from
>>> the earliest to the latest publication.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE MEDLINE
FILE LAST UPDATED: 9 JUL 2005 (20050709/UP). FILE COVERS 1950 TO DAT

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP
RLOAD at an arrow promt (=>). See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 8 July 2005 (20050708/ED)

FILE RELOADED: 19 October 2003.

FILE EMBASE
FILE COVERS 1974 TO 7 Jul 2005 (20050707/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

FILE CONFSCI
FILE COVERS 1973 TO 25 May 2005 (20050525/ED)

FILE SCISEARCH
FILE COVERS 1974 TO 8 Jul 2005 (20050708/ED)

FILE JICST-EPLUS
FILE COVERS 1985 TO 11 JUL 2005 (20050711/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

FILE JAPIO
FILE LAST UPDATED: 4 JUL 2005 <20050704/UP>
FILE COVERS APR 1973 TO MARCH 31, 2005

<<< GRAPHIC IMAGES AVAILABLE >>>